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The Wisconsin Medical Journal

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A Monthly Journal of Medicine and Surgery

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The Wisconsin Medical Journal

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Signposts

Our road markers of today point out the route to follow; from time to time they reassure us that we have made no deviation and tell us of our progress. So is this Third Annual Lay Issue a signpost on our road to better individual and public health in Wisconsin.

Here the reader will find indications of many important advances on the route that has been followed. He who reads may find directions for his future travel which may save him many a long detour.

Scientific medicine has traveled far and fast in recent years. The average span of life has been lengthened from 33 years to 58 years and the end has not been reached. But we have come to the point where further advance requires an understanding assistance from the public at large, particularly from those who lead public thought.

We now know that pure water and pure food have practically eliminated typhoid fever; that vaccination prevents smallpox; that Wisconsin children need not die of diphtheria; that infant mortality is steadily decreasing and that childbearing is decreasingly hazardous; that tuberculosis and infectious and communicable diseases each year are pushed further and further from our doors. We know that basic medical practice acts and similar public health laws, well enforced, will keep the quack and pretender from preying upon those who most need capable service. All this and more has scientific medicine accomplished, often without public aid.

Cancer and diseases of the heart and kidney challenge the Future. For just as we advance the span of life, so do these forms of disease claim more and more each year. They too can be checked but not without public assistance. Now, more than ever, does medical science need the aid of the public. And with that aid, given intelligently through individual effort, the time is not far distant when we shall be able to point to an average span of life of 75 years.

In this Third Annual Lay Issue the medical profession of Wisconsin speaks to their fellow men and women. Cooperation is asked and a promise full of hope and cheer is given for the future of us all.

The Editor.

The Romance of Medicine

"Prevention runs as a thread of gold through the fabric of medicine."

BY WILLIAM D. HAGGARD, M.D.
President of the American Medical Association
Nashville

"Taught by art divine the sage physician eludes the urn, and chains or exiles death."

The story of medicine enthralls the imagination by its infinite charm and arouses admiration for its victories in the battles against disease.

Its romance is so compelling that men cannot be unmoved by its blessings, when they realize with us its splendor. The records of the discoveries of medicine are more fascinating than fiction; their marvelous benefits are as if in response to Jeremiah's lament, "Is there no balm in Gilead, is there no physician there?"

The price of these great benefactions is beyond all the rubies of the world; it can never be computed and it can never be paid. In the Middle Ages the average life of man was twenty-odd years. Now the span has been increased almost threefold. Compute if you can the growth in economic value of a human life extended to this lengthened expectancy and worth an ever-increasing yearly wage. Compute the value given by bestowing these benefits to all the nations of the world. If you can estimate these things, only then will you have totalled the economic wealth contributed to mankind by this incomparable service. And in the precious years that have been added to the span of life countless days of unhappiness and suffering have been eliminated. Innumerable ills have been parried from the feeble flesh of man. What a glorious thing it is when the piteous procession of men and women beg of you to be allowed to live a little longer on any terms, that you can succor them by the knowledge of Nature's secrets that are your heritage from the studies of the scholars of all times.

Wonderful as the past has been, the last fifty years of medicine has witnessed more achievements of a miraculous character than the five preceding centuries. This is the golden age of medical advancement. Discoveries of transcendent import have trooped on us in bewildering profusion. Allusion to some will suffice to give a glimpse of the glamour by which all are pervaded. The last century gave us ether and chloroform, by which, as Oliver Wendell Holmes said, "the fiercest extremity of suffering was steeped in the waters of oblivion and the deepest furrow in the knotted brow of agony has been smoothed away forever." Antisepsis has revolutionized surgery and made possible the present proud perfection of that most brilliant of all the arts. Mathematically, it has reduced the death rate from all amputations from 65 per cent in Paris in 1861, to 4.5 per cent in Pennsylvania today. Among its many almost incredible feats is now recorded a successful effort to cut the shortened cords inside the heart itself, and allow the fettered valves to close again securely. Although the heart is only one inch from the surface of the body, twenty centuries of surgery rolled by before the scalpel could travel that inch.

Medicine is the only profession that is literally and altruistically devoted to professional suicide. It endeavors chiefly, not alone to cure, but to prevent disease, and thus banish from mankind pain, suffering and ultimate death from maladies of the flesh. But what it cannot prevent it must cure. What it cannot cure it must relieve in severity. Angina pectoris, the merciless, is now being attacked surgically and the heart-pang relieved in certain cases by severing the sympathetic nerves in the neck that transmit the unendurable pain.

The discovery of the germ of tuberculosis, "the Captain of the men of Death," was the beginning of the annihilation of the Great White Plague and is a more important victory for mankind than resulted from the Fifteen Decisive Battles of the World. Already the death toll has been reduced from 160 per hundred thousand in 1910 to 97 per hundred thousand in 1922. But the fact that even today every third minute on the clock's dial marks a death from tuberculosis challenges us to still greater efforts. It is now largely a social problem. As the contagion for the most part comes from the lungs and mouth, we must teach everybody not only to burn expectorations, but to avoid this contagious material in every possible way. We must prevent, rather than be faced by the necessity of attempting later cure.

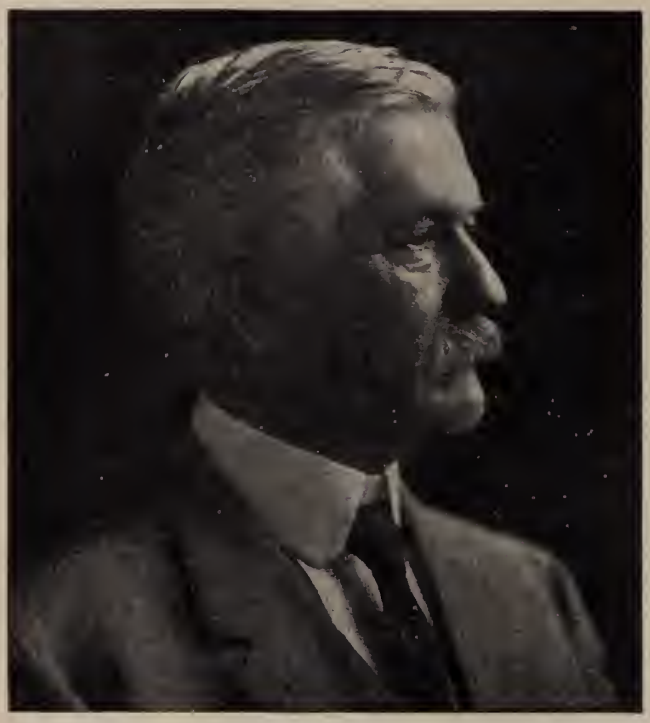
ON OCTOBER 16 1846 IN THIS ROOM THEN THE OPERATING THEATRE OF THE HOSPITAL
WAS GIVEN THE FIRST PUBLIC DEMONSTRATION OF ANAESTHESIA
TO THE EXTENT OF PRODUCING INSENSIBILITY TO PAIN DURING A SERIOUS SURGICAL OPERATION
SULPHURIC ETHER WAS ADMINISTERED BY WILLIAM THOMAS GREEN MORTON A BOSTON DENTIST
THE PATIENT WAS GILBERT ABBOTT THE OPERATION WAS THE REMOVAL OF A TUMOR UNDER THE JAW
THE SURGEON WAS JOHN COLLINS WARREN
THE PATIENT DECLARED THAT HE HAD FELT NO PAIN DURING THE OPERATION
AND WAS DISCHARGED WELL DECEMBER 7
KNOWLEDGE OF THIS DISCOVERY SPREAD FROM THIS ROOM THROUGHOUT THE CIVILIZED WORLD
AND A NEW ERA FOR SURGERY BEGAN

There is still preserved in the Massachusetts General Hospital, Boston, the room in which the first operation with the aid of ether was performed. Hygeia, Feb., 1924.

That the spirochete was the actual cause of syphilis, the great Black Plague, was discovered by Schaudinn in 1905. Miraculously enough, in the next year Ehrlich discovered that his six hundred and sixth experiment with arsenical compounds gave the present arsphenamin, with power to stay its ravages.

A romance in medicine to grip the admiration of the world is the subjugation of typhoid fever. In the Boer War, typhoid destroyed 8,000 British soldiers, while only 7,000 were killed by all the enginery of Mars. In the World War, as a result of antityphoid vaccine, which was given to each of our 4,000,000 American soldiers, and increasing knowledge of sanitation, only 1,083 cases of typhoid fever developed, with only 158 deaths. If the ratio between enlistments and deaths from typhoid in the American Civil War had been maintained in the World War, there would have been some 226,000 cases, with 62,694 deaths. This conquest of typhoid is one of the greatest benisons of modern medicine.

Under a picture that was current recently, of a fervent minister, robed and with upraised hand, was the legend "Preaching to beat Hell." We, as ministers of health must also unceasingly preach —preach pure water, fresh air, sunshine, sanitary environment, plain, wholesome food, exercise and right living—to defeat the powers of darkness and bring the purity of heaven to earth.



The late Surgeon-General William Crawford Gorgas, conqueror of yellow fever and liberator of the tropics. Hygeia, April, 1925.

CONQUEST OF YELLOW FEVER

Most dramatic among modern victories is the conquest of yellow fever, the scourge of the Spanish Main, "the pestilence that walketh in darkness; . . . the destruction that wasteth at noonday." An epidemic of this in 1793 took the lives of 10,000 people in Philadelphia in three months and kept the Southern states in consternation with the recurring seasons. Its devastation prevented the genius of France from building the Panama Canal across a zone which for four centuries had been called the "white man's grave." The indomitableness of Roosevelt was matched by the genius of Gorgas, the master of yellow fever, who made of the charnel-hole of Panama the healthiest spot on earth. Thus occurred the union of the oceans through the canal.

In the opening year of the twentieth century, Reed, Carroll, Lazear and Agramonte proved, through the peace-time bravery of American soldiers who bared their bodies for the fateful experiments, that a mosquito transmits yellow fever. While experimenting with death-laden *Stegomyia*, one of these army surgeons was bitten on the hand and sacrificed his own life in the consuming passion to save his fellow man. No man hath greater love than this. As Agramonte said of him, "One more name, that of Jesse W. Lazear, was graven upon the portals of immortality." Is it immodest for us in recounting this heroic self-sacrifice to have the pride of guild and to regard proudly the noble deeds of our profession?

In the last decade, many diseases of the heart, kidneys, gallbladder and other organs have been shown to be derived frequently from the foci of infection around the teeth, in the tonsils, in the sinuses of the nose, and in other structures. This great discovery has enabled the physician to administer in many cases the most effective of all treatments, the removal of the cause. Rosenow has taken the infectious material from the vicinity of stone in the kidney and, by implanting it in a cavity drilled in the healthy tooth of a dog, has been able to produce stone in the dog's kidney in 85 per cent of the cases. By injecting into the veins of a rabbit's ear material taken from an infected appendix, from ulcer of the stomach, and from inflammations associated with gallstones, Rosenow has also been able to reproduce the disease in the organ from which it was obtained. This experimentation seems to show the specificity of certain micro-organisms for regularly attacking the same structures, under definite conditions. We know, for instance, that the agent in infantile paralysis gains access through the nasal cavity and lodges in the anterior horn of the spinal cord. Prevention or even eradication of diseased foci thrice arms the physician of today for the throttling of many insidious diseases or, if they have gained headway, their amelioration or cure.

The discovery of radium by Madame Curie close on the discovery of the roentgen ray by Roentgen in 1896 was not only a triumph in wresting another secret from the physical world, but has furnished a most necromantic weapon for the cure of certain forms of cancer and for its relief in hopelessly neglected cases.

The use of safe drugs for local injection in rendering surgical operations painless is now like a performance in a world of magic. Antitetanic serum to prevent lockjaw is the king of preventive serums. Practically every battle casualty in France was potentially infected with lockjaw. Every wounded man that came back from the front had A. T. S. (antitetanic serum) pasted on his

forehead. The universal use of the serum mercifully prevented the terrors of lockjaw.

The transfusion of blood into the veins of those who from injury or disease are sickened into the whiteness and coldness of death quickly brings back the glow to the cheek and the red-lipped promise of reclaimed life. This boon was made possible by the discovery by Mall, of the four types of blood; the use of an untyped and dissimilar blood-group donor is most dangerous.

We physicians and the whole world are daily debtors to the innumerable instruments of precision, to the blood pressure apparatus, and the newer instruments for administering gases, that render anesthesia almost totally devoid of danger.

What is more astounding than the revelation in the last few decades of the part played in our bodies and lives by the wonder-working ductless glands? They send weird and powerful hormones as chemical messengers to command the functions of the body. The thyroid gland presides over our growth; its absence makes the gnomelike grotesque idiot, the cretin. Administration of the life-giving thyroid extract veritably restores the dead in mind and brings dwarfed bodies back to blooming youth. Compared to these realities, legends of old-time restoration of the dead are but interesting myths.

It seems incredible that the pituitary gland at the base of the brain, weighing only 2 grams, will, when diseased, cause the prodigious growth of a giant, and when its secretion is deficient produce the enormous fat deposit of the pathologically obese.

DISCOVERY OF INSULIN

The greatest romance of the last few years in medicine was the discovery of insulin by Banting. The wizardry of rescuing the diabetic patient by this remarkable discovery is truly a marvel.

Goiter is largely due to a deficiency of iodin in food and water. While it can be successfully removed, with an infinitesimal death rate, it should be prevented in childhood by the administration of iodin in small quantities to children twice a year. These wonder-working ductless glands largely determine personality. Individuality seems, after all, to be largely the product of the chemistry of our bodies.

Passing from the intangible to the practical, we may note that the solution of the pellagra problem seems nearer with the increasing belief that pellagra (a skin and spinal disease prevalent in southern and central portions of the United States) is a deficiency disease, possibly from a shortage of vitamins, and seems to be caused by faulty protein food mixture and is greatly benefited by fresh meat and milk. These and other contributions of medicine to the relief of humankind are more thrilling to the man of science than all the wars of selfish kings.

I am not an unqualifying eulogist of the profession of medicine; I am but telling the plain, unvarnished truths that constitute the romance of our great calling. Like every sublunary institution, that of medicine is subject to evils, many of them common to it and other professions, and many others pertain to it alone. We are prone to be overenthusiastic about each new advance; on the other hand, many of us are as unable to evaluate the worth of a fresh discovery as was Joseph Bell (the original of Sherlock Holmes) to recognize the solemn significance of antisepsis, as advocated by Lister, albeit he was his daily colleague in the wards of the Glasgow Infirmary.

It may not be regarded as romantic, and therefore within the realm of this paper, to recall that the cause of typhus fever is the bite of an infected body louse; but when one thinks of the terrifying epidemics on sea and land which have been stamped out by this knowledge and by sanitation, our medical accomplishment rises, not only to the romantic, but to the sublime. Likewise the most fatal of all infections, plague, bubonic and pneumonic, is transmitted to man by the flea that has bitten the infected rat. The extermination of the rat to prevent it and Haffkine's vaccine to cure it is a historic achievement. Rocky Mountain spotted fever has been shown by Ricketts to be transmitted by the wood-tick.

The most threatening cloud of chronic disease in the South, hookworm, has been dissolved by the wand of Aesculapius (god of medicine). Through the labors of physicians and the beneficence of the Rockefeller Institute, the weakened, anemic, shiftless "poor white" has, by the use of thymol, been freed from the parasite. There is yet so much to discover. It requires a vision and endless, patient, animal experimentation. Claude Bernard said that whenever he left his laboratory he put on the cloak of his imagination in order to know where

The most illustrious woman scientist is Madame Curie in whose Paris laboratory radium was isolated. Radium, the most gigantic energy yet discovered, is employed in treating that great scourge, cancer. Hygeia, Sept., 1925.

next to look, through experimentation, for Truth. The microbic causes of smallpox, of measles, of mumps, of chickenpox and of the much-dreaded encephalitis (so-called sleeping sickness) are as yet undetected. And many chronic diseases are still eluding an accurate analysis and a cure. Lest we be vainglorious, let us hasten to remember that there is as yet no specific for pneumonia, which, with the other acute respiratory diseases, destroys more lives every day than any other one ailment.

CANCER—AN ELUSIVE FOE

Cancer, the most pitiless of all maladies, is our rebellious and still elusive foe. It has not yielded up its murderous secret. We know all about its life history except the very beginning. It is regularly curable in its first stages, in many cases by surgery, in many by radium, and in others by the roentgen ray; but its bacterial causes, if such there be, still elude the patient investigator. The honor and benefit of this great discovery is more to be desired by the physician than the wealth of Midas, the wisdom of Solomon or the glory of Napoleon.

The fiery serpent that bit the children of Israel when they wandered through the wilderness was possibly the guinea-worm, which enters the body as a water-flea, develops, and ultimately lies coiled under the skin, from 1 to 6 feet in length. It formerly was coaxed out by winding it on a stick little by little each day. Then the zoologist found that it seeks water in which to lay its eggs, and will naively crawl out if the affected leg or arm is simply submerged in water for a few hours.

The mysterious is so simple when revealed by science! And so our learning advances little by little. Each of the myriad of discoveries for the protection of man against his environmental enemies is almost akin in comparative magnitude to the body of a single tiny coral polyp in the great structure to which it contributes. Thus we rear the eternal structure of the Temple of Medicine.

PERIODIC HEALTH EXAMINATION

The real romance of present-day medicine is to prevent or to discover early the degenerative conditions of the great organs, the heart, kidneys, liver and brain. All the saving in life has been in the prevention of infant mortality in the control of contagious diseases. Eternal vigilance of every individual by his physician is the price of lengthened life in the middle aged.

As civilization can be measured by the statistics of public health, so sanitation is an expression of humanitarian impulses coupled with intelligent and expert application of medical knowledge to the community. Preventive medicine has made phenomenal progress in recent years. Particularly is this exemplified in the unsurpassed efficiency of the American army from the point of view of health during the World War. It was the cleanest army the world has ever seen. There were required more than 35,000 of the flower of the American medical profession to make and keep it fit to fight. None but the regular practitioners of medicine were permitted to touch the bodies of the precious soldiers in cantonment or advanced sector; but the noncombatants were constantly attacked at home, as always, by bizarre methods of treatment, so-called, of a type which, as Barnum said, the American people love.

Community health is much in advance of the prevention of illness in the individual. Physicians have been so busily occupied in the care of the acutely sick that they may have had little time and have given scant attention to those who are in apparent health. People in great numbers have been amazed, when resting securely in the supposed enjoyment of perfect health, to find that an examination for life insurance revealed some entirely unsuspected malady, such as Bright's disease, diabetes or heart disease, that could and should have been easily detected long before. One-

third of the people who die from heart disease or Bright's disease die before they are 50 years of age. Even apoplexy shows 15 per cent of its mortality under 50. These three conditions cause more than one-fourth of all deaths. By early detection and eradication of the causes of these fatal lesions, many unnecessary deaths can be prevented.

What does it profit a person to neglect his physical condition and the wonderful mechanism of his body, the temple of his immortal soul? All other machinery is thoroughly overhauled at regular intervals. Boilers are frequently inspected, lest they explode. We all, physicians and laymen, have ignored the tremendous importance of a periodic and thorough physical examination. We have thus neglected our patients and even ourselves. In Shakespeare's Cymbeline, the Bard sagely remarks, "By medicine life may be prolonged, yet death will seize the doctor, too."

Have a thorough physical examination on your birthday! It should be a real survey of a man's physical as well as mental status. Why should not a yearly inventory be made by one's physician of his habits, environments, occupation and dietary?

We will utilize our skill in anticipating future disability. We shall be promoting the ever-widening field of preclinical medicine, and shall at last come into our own, because in the interpretation of our findings and the laying down of rules of health and conduct we shall at last be carrying out the original meaning of the word "physician," which is teacher. We must learn to deal with the brutally healthy man who never thinks of anticipating disease and forgets what a tremendously intricate and wonderfully made machine he so wofully neglects. He is very confident, yet his apparently superb stamina sometimes plays him false by throwing him entirely off his guard and making him an easy prey for some insidious disease stealthily to take hold on him. The proverb says, "Honor a physician before thou hast need of him."

It is estimated that the number of cases of sickness in this country in a year is thirteen and a half million, costing the nation a billion dollars. It is astounding to think that there are 225 million days of sickness a year in the United States. If it were possible, by nation-wide effort, to reduce the amount of sickness by 25 per cent, the total economic gain yearly would be around a quarter of a billion dollars. How can one estimate the worth in anguish relieved and death postponed? Prevention runs as a thread of gold through the fabric of medicine.

The above was taken from Dr. Haggard's Presidential address at Atlantic City, May, 1925.

How Wisconsin Purchases Health For Its Citizens

"For no other line of public expenditures is the proof so clear that the money invested has been well spent, yet the state spends less for health than it does for conservation of fish and game."

BY EDWIN E. WITTE

Chief, Wisconsin Legislative Reference Library

The state spends less than the cost of a candy bar on the health of each of its citizens—yet Wisconsin has the lowest typhoid fever rate in the Union.

The state appropriates less money for health than it does to aid county fairs—yet Wisconsin is second only to Kansas in life expectancy.

Four times as much is spent for streets as is spent for health—yet Wisconsin spends considerably more on health than do most other states.

Public health is after all but the sum total of our individual health. Mr. Witte tells you what the state is doing to protect your health.—Editor's Note.

Governmental expenditures for the promotion of public health and for sanitation have been increasing quite rapidly in Wisconsin in recent years and are relatively greater than in most other states. Yet the expenditures for these purposes constitute only a small part of the total governmental expenditures.

TOTAL EXPENDITURES FOR HEALTH

The total expenditures for health and sanitation in 1923 were abnormally great due to non-recurring capital expenditures in Milwaukee county of above $2,500,000. But even when allowance is made for this item, there is still disclosed an increase of nearly 200 per cent in the total public expenditures for health and sanitation in Wisconsin during the last decade. Reduced to a per capita basis, the total expenditures for these purposes increased from 88 cents in 1912 to $1.91 in

1918, $2.92 in 1922 and $3.80 in 1923. This is a greater increase than the increase in all governmental expenditures during this period. In 1912 the expenditures for health and sanitation accounted for 3.8 per cent of all expenditures in 1912 and for 4.5 per cent of the total in 1922 and 5.9 per cent in 1923.

As these percentages indicate, while expenditures for health and sanitation have increased rapidly, they constitute a relatively small part of the total expenditures of the state and its several political subdivisions. These total expenditures reached a per capita of $64.37 in 1922 and of $63.73 in 1923, of which only $2.92 and $3.80, respectively, was spent upon health and sanitation. In contrast, $19.55 was spent in 1923 for education, 17.25 for streets and highways, $3.87 for the protection of person and property, $3.51 for charities and corrections, $3.57 for general government and 7.51 for the payment of the principal and interest of debt.

The increase in the expenditures for health and sanitation of the various governmental units in this state is shown in Table I, which is at least approximately accurate.

TABLE I. GOVERNMENTAL EXPENDITURES FOR HEALTH AND SANITATION IN WISCONSIN, FISCAL YEARS ENDING JUNE 30, 1912, 1918, 1922 AND 1923.

Governmental Unit	1912	1918	1922	1923
Total	$2,082,603	$4,860,548	$7,850,046	$10,362,542
State	238,641	298,551	809,830	708,566
Counties	58,883	513,849	1,044,952	3,946,249
Cities	1,641,744	3,891,813	5,809,693	5,450,576
Town and Villages	143,335	156,335	185,571	256,971

NOTE—This table has been compiled from the Report of the State Board of Public Affairs, "The Public Money. Where It Comes From. Where It Goes," issued in 1914, and from Bulletins No. 8 and 21 of the Wisconsin Tax Commission.

STATE EXPENDITURES

No figures are available to show in detail the several items which enter into the total expenditures for health and sanitation as given above. Such an analysis is available, however, for the expenditures of the state government since 1915 and this is presented in Table II.

It will be observed that approximately one-half of total expenditures which the Census Bureau classifies as having been made for the "conservation of health and sanitation" were devoted to the prevention and control of tuberculosis, through the state sanitarium at Wales, the Tomahawk Lake camp and state aid to the 14 county sanitoria. Another one-fourth of the state expenditures falls under the item "food regulation and inspection," a considerable part of which represents promotion of the dairy industry rather than protection of public health. The final one-fourth represents the expenditures of the board of medical examiners and the major part of the activities of the state board of health.

TABLE II. EXPENDITURES OF THE STATE GOVERNMENT OF WISCONSIN FOR CONSERVATION OF HEALTH AND SANITATION, AS GIVEN IN THE REPORTS OF THE U. S. CENSUS BUREAU OF THE FINANCIAL STATISTICS OF STATES, FISCAL YEARS ENDING JUNE 30, 1915, 1919 AND 1923.

Purpose	1914-15	1918-19	1922-23
Total	$282,414	$458,390	$976,481
General Supervision	35,472	45,278	94,285
Tuberculosis	152,426	315,858	478,508
Other communicable diseases	7,960	14,772	55,845
Conservation of child life	.....	.....	35,936
Food regulation and inspection	70,158	51,561	243,071
Regulation of professional occupations	7,827	17,038	22,688
Other health and sanitation	8,571	13,883	46,148

NOTE—The totals as given in this table differ from those given in Table I as the total expenditures of the state government for health and sanitation, because the tax commission includes under this heading slightly different items than does the U. S. Census Bureau.

As to the later department, a clearer picture of its remarkable growth is given in Table III, which gives the total expenditures of the state board of health by five-year intervals since 1904.

TABLE III. TOTAL EXPENDITURES OF THE STATE BOARD OF HEALTH BY FIVE-YEAR INTERVALS, 1904-1923, AS REPORTED BY THE BOARD OF PUBLIC AFFAIRS.

Year	Total Expenditures
1904	$ 5,593
1909	13,563
1914	43,618
1919	97,950
1923	239,506

While, thus, the expenditures of the board of health have increased by more than 100 per cent during each five-year interval of the last two decades, these expenditures are still exceeded by those of many other state departments. These expenditures are less than one-twentieth as great as the total state expenditures for charitable and penal institutions, and but one-sixth of the expenditures for the care and treatment of the

HON. EDWIN E. WITTE,
Director, Wisconsin Legislative Reference Library.

insane and one-half of the cost of the homes for the feeble-minded. Likewise, the present total expenditures of the board of health are less than the amount of the annual state aid to county fairs and, also, less than the state's expenditures for the conservation of fish and game.

Reduced to a per capita basis, the total expenditures of the board of health amount to a little more than 8½ cents. But even this figure exaggerates the cost of this department to the taxpayers of the state. While the board of health spent a total of $239,000 in the fiscal year ending June 30, 1924, $91,000 of this amount was derived from sources other than state taxes ($26,000 was contributed by the federal government and $65,000 was received from hotels and restaurants, plumbers, barbers, nurses, beauty parlors and embalmers in license fees.) The appropriations to the state board of health for the current biennium, other than of fees and federal aids received total exactly $147,870 per year—an amount equal to less than 5½ cents per capita.

COMPARISON WITH OTHER STATES

Yet Wisconsin spends considerably more upon public health and sanitation than do most other states. From the report of the U. S. Census Bureau on the *Financial Statistics of States, 1923,* it appears that Wisconsin in that year spent 36 cents per capita for all purposes grouped by the census under the general heading of "conservation of health and sanitation." Of this per capita, 20 cents was expended upon the prevention and treatment of communicable diseases and 16 cents for other purposes classified as being connected with health and sanitation. In contrast with Wisconsin's expenditures of a total of 36 cents per capita, the state governments of the country as a whole spent only 20 cents and other states of the middle west the following amounts: Ohio, 11 cents; Indiana, 14 cents; Michigan, 17 cents; Illinois, 11 cents; Minnesota, 30 cents; and Iowa 21 cents. Eight years earlier (1915) the state governments of the United States spent on the average 10 cents per capita for health and sanitation and Wisconsin 11 cents. These figures represented 2.7 per cent of all state expenditures for the United States as a whole and 2.6 per cent of Wisconsin's total expenditures. By 1923 Wisconsin's expenditures for health and sanitation had increased to 3.7 per cent of its total expenditures, while the expenditures of all state governments combined decreased to 2.5 per cent of their total expenditures. Yet even in this year, Wisconsin spent considerably less per capita for public health and sanitation than did the New England states and some of the Middle Atlantic states, although far more than the general average or neighboring states.

As for the expenditures of the local governments, no similar statistics are available except for cities with a population of 30,000 and over. For these larger cities the U. S. Census Bureau has for some years published annually a report on the Financial Statistics of Cities, the last complete report being for the year 1922. From this last report, it appears that Milwaukee is well above the average of cities in its class in its per capita expenditures for health and sanitation, but that other Wisconsin cities with 30,000 population, except Madison and Kenosha, are slightly below the general average. Milwaukee with total expenditures for health and sanitation of $2,334,857, spent three times as much for this general purpose as did the state government. Its per capita expenditure of $4.89 is to be contrasted with an average of $3.86 for all cities with a population of from 300,000 to 500,000. In total per capita expenditures for all purposes, Milwaukee ranked fifteenth among the twenty-three cities with a population above 300,000, but it stood fifth in expenditures for public health and sanitation and was outranked by only two cities in its own class.

Where our state health laws are enacted by the legislature.

DOES IT PAY?

With increasing public expenditures for health and sanitation and with proportionately larger expenditures for this purpose in Wisconsin than in most other states, the question arises has this expenditure been worth while. Upon this point, there can be no doubt that these expenditures for the conservation of public health have yielded a return far beyond their cost. For no other line of public expenditures, is the proof so clear that the money invested has been well spent.

For nearly all communicable diseases mortality rates have decreased with the increase in expenditures for public health and sanitation. This has been true alike of tuberculosis, typhoid fever, meningitis, diphtheria and the various children's diseases.

In 1908 this state had 2,509 deaths from tuberculosis and a death rate from this disease of 109.3 per 100,000 population. Fifteen years later, in 1923, it had 1819 deaths from this cause and a death rate of 66.5 per 100,000 population.

Yet more striking is the reduction of cases of sickness and death from typhoid fever. In 1910 there were an estimated number of 6,000 cases of typhoid fever in Wisconsin and 319 recorded deaths. In 1924 there were 261 cases and 28 deaths.

For meningitis the reduction in number of deaths has been from 465 in 1908 to 125 in 1923 and in the death rate per 100,000 population from 19.7 to 4.6.

As to diphtheria there has been little change within the last fifteen years, but a very great reduction since public health work was started in this state. In 1881 there were 9,714 cases of diphtheria with 1,404 deaths. In 1923, with double the population, there were 4,400 cases with 358 deaths, and this was a bad year.

The number of deaths from measles, scarlet fever and whooping cough fluctuate greatly from year to year and in some recent years there have been more deaths from these diseases than in some earlier years. When, however, the figures are combined by five-year periods the downward tendency is very apparent. Grouping thus, the figures for the fifteen years ending with 1923, the number of deaths from measles in Wisconsin for the first years of this period is seen to be 863, for the second five years 704, and for the last five years 567. For scarlet fever the figures are 1361 in the first period, 868 in the second and 1055 in the third; and for whooping cough 1064, 912 and 841, respectively. All these "children's diseases" show an upward tendency in number of cases reported, probably due to better reporting; but, fortunately, a downward tendency in number of deaths.

Yet more important is the rapid decrease in

recent years in the number of deaths of babies under one year of age from all causes. In 1909 this state lost 6,027 babies under one year of age, or 119.7 of 1,000 babies born in this year. In 1923 the number of babies who died was 1,874 less than in 1909, although there were nearly 10,000 more babies born—a rate of 69.9 deaths for each 1,000 babies.

Wisconsin's record, moreover, is better than that of states which spend less for public health. The U. S. Census of 1920 disclosed that Wisconsin has the lowest maternity death rate of all the thirty-six states in the Registration Area. It, also, ranked Wisconsin as being second only to Kansas in life expectancy.

Similarly creditable is Wisconsin's record as to communicable diseases. Wisconsin now has the lowest typhoid fever rate in the Union—an item of great importance to the ever increasing number of summer visitors, since it means that Wisconsin leads all states in the safety of its water supply.

Wisconsin, also, has a materially lower mortality rate of infants under one year of age and from tuberculosis, meningitis and whooping cough than the entire Registration Area. In 1922, Wisconsin's infant mortality rate was 70.2 per 100,000 population, that of the entire Registration Area 76.0 and its tuberculosis rate was 67.1 as compared with 97.0 in the Registration Area.

Public health work undoubtedly is but one of the many factors which account for the remarkable reduction in mortality rates in recent decades. That it has been a very important factor in bringing about this reduction, however, is definitely established by the fact that the best records have been made in states which have spent the most for public health and sanitation. Wisconsin, to its credit it may be said, is one of the advanced states in this respect and its experience proves that expenditures for public health are paying investments.

The Use and Abuse of Drugs

"The 'patent medicine' industry brings more work to the medical profession than all other agencies combined; more than has the most virulent epidemic of modern times."

BY A. S. LOEVENHART, M.D.
Professor of Pharmacology, University of Wisconsin

People may be classified in regard to their belief in the efficacy of drugs in the treatment of diseases into three groups: (1) the faith healers who believe that drugs are of no service whatever in the treatment of disease; (2) the patent medicine interests who would have us believe that medicines can cure all illnesses; (3) physicians who study the action of drugs and use them rationally on this basis.

The faith healers deny utterly the value of drugs. To be consistent, they would have to deny the value of general and local anesthetics, of morphine to relieve pain, the purgative action of a dose of salts, and other equally obvious beneficial effects. We find, however, that when they submit to an operation they are always willing to take an anesthetic. There are other faddists who would deny that drugs have value and use various physical methods, the beneficial effects of which could only be due to faith.

The second class, the patent medicine interests, claim that drugs can almost cure glass eyes or wooden legs. This position is as bad as that of those who deny all value of drugs, because their claims are totally incapable of standing any rigid test. They do a great deal of harm in the world. The backbone of their business is the testimonial. Mr. Blank writes that he was suffering with such and such condition, took this medicine, and received great benefits or was cured. On looking up the individual in many cases, we find that he has subsequently died of the disease from which he was supposed to have been cured by the medicine. In many cases we find these testimonials are continued to be used for long periods subsequent to the death of the individual. There are many such cases on record. The value of a testimonial from a man that he was cured of tuberculosis by a patent medicine is obviously lessened by the fact that he died of tuberculosis after giving the testimonial. Who would think of accepting the testimonial of a blacksmith regarding the value of a fine watch movement or of a work of art? The only testimonial that would be of any value regarding the efficacy of a medicine would be from a person who is able to make a correct diagnosis and who would

CORONER'S WARNING:

Experience in the coroner's office during the last year in which a number of lives have been lost leads me to the conclusion that it is my duty to advise the public of the dangers attending the promiscuous use of many of the so-caled goiter remedies on the market.

The experience at Akron, Ohio, and in Bern, Switzerland, under which the administration of iodine to children of the age of 10 to 14 years has prevented the development of goiter, is probably responsbile for this general use of proprietary medicines in the treatment of the goiter

This treatment is a preventative and not a cure. The remedy is a poison to an individual with a developed goiter.

In view of the fact that many deaths have resulted from toxic goiter, and that these goiters have been fed by these so-called goiter remedies, I believe it my duty as coroner of Sheboygan county to warn against the use of any solution for the treatment of goiter after it has developed, except under a competent physician's direction.

Signed.
William Van Zanten,
Coroner

Goiter "cures" may be highly dangerous to life itself. Here we have the Coroner of Sheboygan County resorting to advertising in the newspapers in an effort to save the people of his county from the "cures."

know definitely the composition of the materials which he used in treating the condition.

The Pure Food and Drug Act only prevents the manufacturer of a preparation from printing lies on the label of the bottle and in no way prevents him from advertising anything that he pleases as long as it is not on the label of the bottle. Not one person in a hundred reads the label. He buys patent medicines from advertisements in newspapers, circulars, almanacs, etc., where the testimonials are displayed, and reads the label only to ascertain the dosage. The business will continue to flourish as long as false advertising apart from the label is allowed.

"A DOCTOR WHO TREATS HIMSELF"

The patent medicine business is opposed to the public good for the following reasons. It advises people to treat themselves and it is evident that self-drugging is a bad proposition. If an individual has anything the matter with him that is interfering with his efficiency, it is important that he have a thorough physical examination. No competent physician would attempt to prescribe for a patient without such an examination. Wise physicians do not treat themselves or the members of their own family. The great physician, Sir William Osler, stated that "a doctor who treats himself has a fool for a doctor and a fool for a patient." If this is true for the doctor, how much truer is it for a person who treats himself without any understanding of the ailment which he is treating and by means of medicines of which he has no knowledge of the composition? Under the term "self-drugging," we would not include such simple things as taking a dose of a purgative when a person is occasionally constipated, or taking a dose of phenacetin, aspirin, or similar drug when one has an occasional headache. However, when conditions demanding such simple remedies become chronic there is a reason for the disability and the person, if he is intelligent, will seek wise medical counsel, rather than try to treat symptoms. Even a person in perfect health would be wise in having his machinery inspected occasionally; it would be conducive to a longer, happier and more useful life.

LIGHTNING CHANGES

The composition of a patent medicine may change over night without any change appearing on the label. The material sold under the same name may vary in composition in different countries. Patent medicine advertisements are often objectionable because of the publication of such statements as — "Have you a pain in the back? If so, you have kidney trouble." As a matter of fact, it is exceedingly rare that a person having kidney trouble has pain in his back. Pain in the back is an exceedingly common thing and such advertising tends to make people think that they are seriously ill when they are not. Patent medicines tend to make people who have serious diseases neglect them until it is too late for them to be benefited by proper medical treatment. A well known case in point is that of Fred Wick. In the issue of Friday, May 11, 1917, the Holyoke Daily Transcript published a testimonial from Fred Wick of 52 Granby Road, South Hadley Falls, Massachusetts, stating that he had been re-

Playing on fear. Here we have reduced reproductions of a common series of advertisements so designed as to make the public believe that pain in the lower part of the back is an indication of kidney trouble. It is nothing of the sort. Advertisements of this kind create patients for the doctors as well as customers for the drug store.

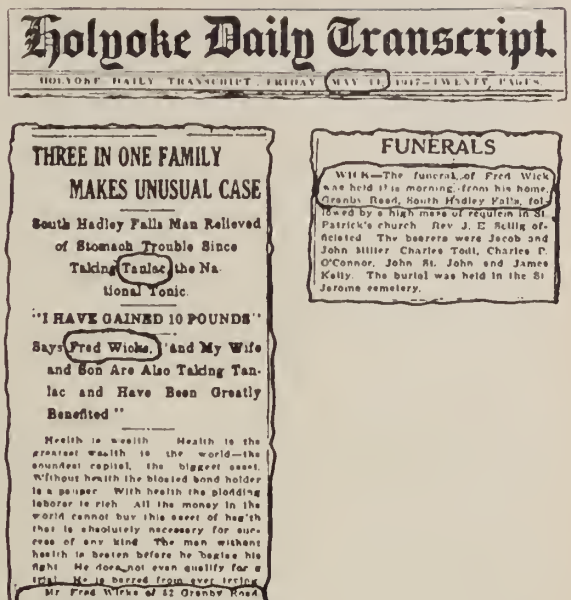
lieved of stomach trouble and had gained ten pounds in weight since taking TANLAC—("the national tonic"). In the same issue of this paper under Funeral Notices we are informed as to how Fred Wick had been relieved of his stomach trouble. It states that "the funeral of Fred Wick was held this morning from his home, Granby Road, South Hadley Falls, followed by a high mass of requiem in St. Patrick's church. Rev. J. E. Sellig officiated."

The death certificate of May 9, 1917, declares that the cause of death was cancer of the stomach. We, therefore, see that Fred Wick was permanently relieved of stomach trouble but in a manner not satisfactory to his family and friends. We do not know what the condition of Fred Wick was at the time that he started taking Tanlac; it may be that at that time the cancer of the stomach had not reached a stage where operation could have cured him, but there must be a large number of cases in which people have delayed seeking competent medical advice until too late for this to be of service. This case also illustrates that testimonials continue to be used after the death of the individual and shows the reliance that may be placed upon published testimonials without verification.

Patent medicine manufacturers often accumulate vast fortunes. These fortunes are derived principally from homes in which there is poverty, ignorance and sickness. Take the case of "Professor" Samuels, for instance, who accumulated a fortune selling a fake medicine. I have in my possession photographic copies of some letters which were sent to him showing that the people who contributed to his fortune were ignorant and poor. Wealth in the hands of such a man is certainly opposed to the public good.

HABIT FORMING DRUGS

Morphine, cocaine, and alcohol are the great



Holyoke Daily Transcript.

HOLYOKE DAILY TRANSCRIPT, FRIDAY, MAY 11, 1917—TWENTY PAGES

THREE IN ONE FAMILY MAKES UNUSUAL CASE

South Hadley Falls Man Relieved of Stomach Trouble Since Taking Tanlac, the National Tonic.

"I HAVE GAINED 10 POUNDS"

Says Fred Wicks, "and My Wife and Son Are Also Taking Tanlac and Have Been Greatly Benefited"

Health is wealth. Health is the greatest wealth in the world—the soundest capital, the biggest asset. Without health the blasted bond holder is a pauper. With health the plodding laborer is rich. All the money in the world cannot buy this asset of health that is absolutely necessary for success of any kind. The man without health is beaten before he begins his fight. He does not even qualify for a fight. He is barred from ever trying.

Mr. Fred Wicks of 52 Granby Road, South Hadley Falls Mass., has been relieved of stomach trouble and has gained 10 pounds in weight since taking Tanlac. His wife and son are also taking it and have been greatly benefited. Mr. Wicks made and signed the following statement at Georges Drug

FUNERALS

WICK—The funeral of Fred Wick was held this morning from his home, Granby Road, South Hadley Falls, followed by a high mass of requiem in St. Patrick's church. Rev. J. E. Sellig officiated. The bearers were Jacob and John Miller, Charles Todt, Charles P. O'Connor, John St. John and James Kelly. The burial was held in the St. Jerome cemetery.

Here is a testimonial that appeared in the Holyoke Daily Transcript, May 11, 1917. It was written by Fred Wick and was a boost for "Tanlac." In the same issue of the paper was a notice of Mr. Wick's funeral. This testimonial was, doubtless, written honestly and in good faith. The alcohol in "Tanlac" is responsible for a temporary feeling of well-being.

habit forming drugs but one may become accustomed to sleep producing drugs and drugs such as acetanilid, phenacetin, or aspirin which tend to relieve pain. The words "drug habituation" and "drug addiction" are often used interchangeably. We should reserve the term "drug addiction" to those cases in which the drug produces marked changes in the body and undermines health. We can become accustomed or habituated to drugs which are not so severe in their action—drugs like tea, coffee, coca cola, all of which contain caffeine, which is a powerful stimulant. These particular beverages should not be used by persons troubled with insomnia or persons who are nervous. One may be said to be habituated to a drug when the withholding of the drug produces disagreeable symptoms.

EFFICACY OF DRUGS IN TREATMENT OF DISEASE

There is no possibility of a difference of opinion as to the value of certain drugs in the treatment of certain diseases. There can be no two opinions as to the law of gravitation. It is a fact that bodies are attracted to one another by a force proportional to the product of their masses and in-

versely proportional to the square of the distance between them. This can be verified by anyone who will take the time to do it. Similarly, it can be proven beyond doubt or question that quinine is curative in malaria; that digitalis is beneficial in heart disease; that sodium iodide given to school children will prevent goiter; that veronal will produce sleep; that luminal will lessen the number of epileptic seizures; that tryparsamide will cure South African sleeping sickness; that magnesium sulphate will purge. Numerous other examples might be given. The action of many drugs, therefore, is not a matter of opinion but a matter of demonstrable fact.

The two great aims of medicine are (1) to prevent disease and (2) to cure people who have become ill. In connection with the latter effort, we must develop new remedies and it is one of the great purposes of medicine in this connection to secure positive proof of the efficacy of certain drugs and to take out of the column of remedies those substances whose efficacy is a matter of opinion and to place them in the column of remedies of proved value.

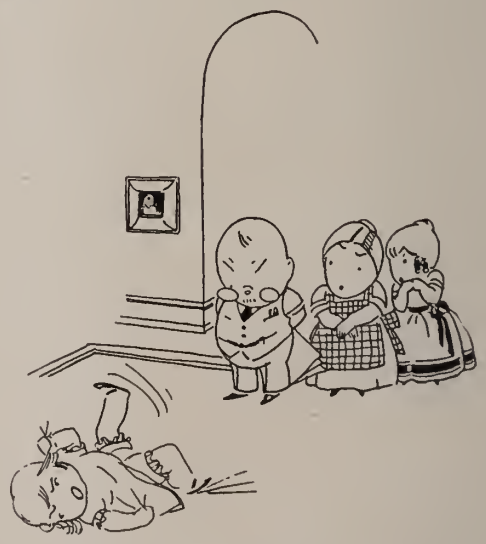
What Do We Mean by "Naughtiness"?

"Very faulty training may be given with the utmost kindness and under conditions that superficially appear excellent."

BY H. DOUGLAS SINGER, M.D., M.R.C.P.
Wauwatosa

The days of exorcism as a means of treatment for sickness, are presumably past. We no longer burn witches at the stake and, in the main, we avoid incantation as a remedy for disease. But have we advanced much beyond this stage in our conception of naughtiness, delinquency, or crime? Are we not still inclined to regard repeated social misbehavior as "innate wickedness?" Such a conception can mean nothing but belief in possession by a devil, even though we may refrain from personifying the devil. Furthermore, are we consistent even in our attitude toward this? Do we not, in spite of acquiescence in the view that wickedness may be innate, and hence chosen by the individual who commits it, still hold the sinner responsible? There is a more rational explanation for the facts and one that will at least serve as a guide toward finding a remedy.

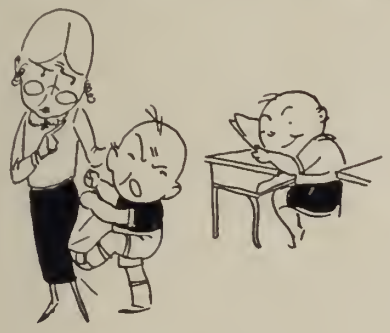
In the essence, naughtiness and delinquency mean the violation of certain rules or regulations that have been built up gradually for the maintenance and protection of society. This gradual evolution in itself suggests that the rules have been elaborated to meet the needs for prohibiting certain kinds of behavior that are to be expected. In other words, the acts we now label reprehensible, because they are harmful to society, are the natural outcome of tendencies that are inherent not merely in certain wicked persons but in all of us. Naughtiness represents the failure to learn how to control such natural or primitive ways of acting. It is entirely natural to seek gratification of the senses, appetites and passions. Such tendencies are truly innate, but under social conditions of life they must be controlled.



The reasons for the failure to learn control of these instinctive reactions in accordance with social requirements are manifold. It may result from defect or disease—feeblemindedness, insanity, intoxication, and so forth—by preventing the development or use of the intelligence on which such control is based. On the other hand, it may be the outcome of lack of training in habits of self-control, or even of the giving of training that tends to promote delinquency. Society today recognizes the former group of causes as relieving

from individual responsibility provided they are sufficiently obvious. The second group, however, is differently regarded. The individual is held to be responsible and our laws with the penalties attached have been enacted to deal with him. But is he in ultimate analysis really responsible? Did he select the manner of his training and could he have modified it if he would? Surely society itself should carry some of this load of responsibility and instead of merely punishing the delinquent for violating social rules, should seek to prevent the delinquencies by seeing that proper training is given.

In considering the question of training or education it is essential to realize that very faulty training may be given with the utmost kindness



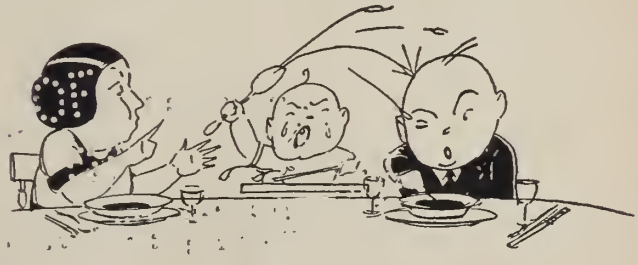
and under conditions that superficially appear excellent. Even in cases in which the parents devote themselves whole-heartedly to the training of their children, playing and working alongside of them, much harm may arise from the atmosphere of dependency on a dominating parent who so showers his child with suggestions for activities, interests and amusements that the child is not trained to think and choose for himself. When released from parental direction such a child is liable to find himself handicapped in dealing with temptations, and to feel inferior in his relations with others. Often, also, such parents endeavor to plan the life of the child with the purpose of fulfilling their own longings and ambitions, the realization of which has been denied them in their own lives—in other words, the interest in the child is in reality selfish. Such training perhaps more frequently leads to dependency and unhappiness than to naughtiness and delinquency, but it may have this result.

LACK OF DISCIPLINE

More often the naughtiness is the outcome of

indulgence and lack of discipline in the home, whatever be the motive with which such discipline is withheld. In this regard the earliest period of life, before school age, is by far the most important. The child that is humored and allowed his own way with regard even to such matters as hours of feeding and kind of food, who is taken up and fussed over whenever he cries or wants something he should not have, is receiving training in self-indulgence, trivial, perhaps, in its immediate appearance, but pregnant with possibilities for future trouble.

Some of the greatest difficulties arise in connection with children who develop rapidly and have superior intelligence. They are liable to be praised and displayed as prodigies to admiring friends and thus to be taught to regard themselves as superior. This greater intelligence often enables them to "get by" with minor delinquencies



without detection until they come to regard themselves as immune from the usual consequences of unsocial behavior. This is often enhanced by a realization of comparative physical inferiority to older children with whom they come to associate because of their mental superiority. To compensate for this feeling of inferiority they may endeavor to excel in behavior of questionable kind and thus to arouse the admiration of their fellows who, because they are less superior in intelligence, fear to take the chances of being found out.

The illustrations given make no pretense at completeness. They are offered only to bring home the point that what we call naughtiness is not an inherent quality, but is always the outcome of quite natural and essentially valuable longings and desires, which for some reason have not been subjected to the control of habits that are socially permissible. The energy that we speak of as longings and appetites is inherent in the fact of being alive and must find some outlet. Naughtiness results when we fail to establish habits that will provide a channel through which they may be satisfied without offending rules necessary for a social existence.

Medical Practice Sixty Years Ago and Today

Dr. C. S. Sheldon, Madison, Secretary of State Medical Society for a quarter of a century, Reminisces on Life, Doctors and Patients.

BY FRED L. HOLMES
Madison

To be cheer-leader of a football crowd on the day of a great game is a college honor, which many covet but few win. To be generally recognized as a peppy cheer-leader at any social gathering is more than an accomplishment—it is an achievement. Dr. Charles Stuart Sheldon, eighty-three years young and still practicing his profession every day, is by all odds the greatest cheer-leader in Madison.

Not long ago I attended a banker's convention—for the doctor is interested in banks as well as in medicine—and when the dishes had been cleared away and the smokes had been passed around, who should mount a chair and start to lead us in college yells but "Charlie" Sheldon. And there were old fellows there who had not been enthusiastic for many years, but "Charlie" made them tune up.

"Charlie! You're the youngest man in the bunch," remarked Dr. C. A. Harper, director of the state board of health, when the meeting was dispersing.

"I am younger than any man here and I intend to keep young," the little physician replied. There was a smile and a twinkle in his eye that showed that he believed every word he said.

It was nearly a quarter of a century ago when I first met Dr. Sheldon. I was a college chap then, but it always interested me to see him drive down the streets of Madison, sometimes singing old Yale songs as he dropped the driving lines of his little roan mare over the dashboard. He was a picturesque character—a man worth knowing. Life must be a pleasure to such a man, I thought. So I sought his acquaintance.

Somehow it had never occurred to me that Dr. Sheldon has passed his eightieth birthday. Someone told me recently that he was over eighty-three and it so thrilled me that I went up to see him. I wanted him to talk to me about the medical profession; of the days when he started his practice. He laid his corn cob pipe on the side of his desk, looked at his watch—and then I knew there would be no interview that day.

"I am too busy today," said Dr. Sheldon. "I have to preside at a fraternity initiation tonight and I have much to do before then. Come in the first of the week."

When I went back he told me such a human story that I must repeat it. I think that David Grayson, who wrote so wholesomely about country doctors and the medical profession must have known intimately our Dr. Sheldon.

"I think it was in 1864 while I was principal of the First Ward Grammar School in Madison, that I decided to choose medicine for my life vocation," said Dr. Sheldon, as he swung one leg over the arm of his office chair and faced me.

"A SCANDALOUS WASTE"

"The situation was about like this: In 1863, the year I finished my academic course, there were but three recognized professions—law, theology and medicine. To spend four long years at college and not choose one of them was generally regarded by our neighbors, at least, as a scandalous and inexcusable waste of perfectly good time and money. To illustrate: our academic class of 1863 graduated 129 and including non-graduates, their choice of a profession was as follows: Law, 70, over one-half; theology, 32, about one-fourth, (that's a larger proportion than go into preaching nowadays!); medicine, 24, and teaching, 11. So

Photo by De Longe

CHARLES S. SHELDON, M.D.
Secretary, State Medical Society of Wisconsin, 1889-1914.

if we include teaching, over nine-tenths of the class chose a profession.

"As I recollect, my choice was made in somewhat this fashion: I had no thought of going back to the farm, where my youth was spent—in fact it was already sold. I didn't care to be a teacher. I knew I wasn't nearly smart enough to be a lawyer and though a pretty good boy, as boys went in those days, I felt that I was not anywhere near good enough to be a minister. So doctoring was all that was left. I might remark in passing that I have observed even in this enlightened age, that perhaps a majority of young college and university graduates seem to manifest no more austere judgment or discrimination in the choice of their life-work than I did—a decision, which, next to the choice of a wife—is certainly one of the most important and far-reaching in their whole life!

"I remember that at our twentieth class reunion, when at the banquet in the evening, all of us had to get up and tell what we thought of life and our twenty years of trial of it. Our classmate Bill Sumner (Prof. W. G.) said that he thought the three most important conditions for success and happiness in life were: first, good health; second, a good wife; third, a congenial, that is a wisely-chosen, occupation. Measured by this test I ought to be satisfied, since I have been mighty lucky as regards all three of these conditions and lucky is the right word to use in this connection, especially in the wife business.

"For a young man, without any money to speak of, to marry a girl of nineteen who had, as they

say, never cooked a meal in her life, was taking long chances. I had no right to suppose that in addition to her other virtues too numerous to mention, she would turn out to prove the best cook and housekeeper with whom I have ever had any personal acquaintance.

"At the close of my school year at Madison, I accepted the principalship of the State Reform School at Waukesha. However, thinking I had delayed preparation for my life work long enough, I remained there only six months when I resigned and about January 1, 1865, started for New York City to enter the College of Physicians and Surgeons where most of my college classmates 'took medicine' in those days. But on my way to New York, I stopped over at Buffalo to visit my sister, who then lived there. Among others, I met Dr. Julius F. Miner, professor of surgery and President of the Medical College. After hearing my plans he said, 'Boy, you don't want to go to New York City at all—you should stay right here in Buffalo.'

" 'Why do you think so,' I asked.

" 'Because,' he said, 'in a short time I can get you right into the Buffalo General Hospital as assistant resident physician.'

" 'But, I replied, 'I have really never studied medicine a day in my life.'

" 'Well, that makes no difference,' was the reply, 'you are a college man and you can catch on in a short time.'

"This illustrates most vividly how loosely medical matters generally and especially hospital internships were managed in those early days. He made good his promise. In a few weeks I was duly appointed and entered upon my hospital duties.

GERMS FROM GERMANY

"This was in the summer of '65 over sixty years ago, and what a contrast compared with 1925! As I look back it now seems that in the diagnosis and management of diseases we had no aids whatever to speak of, outside our own native wits! It hardly seems possible that sixty years could have effected such a complete transformation.

"In the first place, we had no knowledge whatever of the 'German germs from Germany'—only the very mistiest notions of infection—focal and otherwise, and knew nothing in any true sense of infection and its prevention. The microscope, while in use, was only a toy for the curious. Even the stethoscope was only beginning to be used in hospitals which was the case also of the hypodermic needle. Surgery, in any modern sense, did not exist. With no knowledge of asepsis (prevention of infection), the cranial and abdominal cavities were sacred precincts, never to be rashly invaded except at the risk of life itself.

"We hardly knew the appendix existed and we called appendicitis 'peri-cecal abscess' and 'inflammation of the bowels.' As to the teeth and the tonsils and several other features of our anatomy, we knew that we had them and that was about all. We had no trained nurses nor training schools for nurses, no laboratories, no specialists except in the large cities and, of course, no modern clinics.

"Since the Mayo brothers were then mere infants—Charles just born and Will only three or four years old—we had no hospital record sheets, in fact, no records at all barring a skeleton record of surgical operations. And yet, strange to relate, the great majority of the inmates of the hospital recovered!

"As to the Buffalo Medical College, which I then attended, I believe it was then one of the very best of medical schools outside of a few—perhaps eight or ten—in some of the largest cities. But in that early day there were in a great majority of medical schools no standards of any kind for admission either to the study or the practice of medicine, very much beyond the ability to read and write. For many years thereafter there was but little material improvement in that regard. In the smaller schools the faculties consisted essentially of less than a dozen professors, representing different departments of medicine and surgery. The instruction was almost wholly by lectures which varied but slightly year by year. There were no specialties nor laboratories nor any quizzes to speak of.

"The New York law required three years of study (so-called) with a 'preceptor' and including two courses of lectures at a medical college. Each course began in November and ended in March lasting only four or five months. This state of affairs could not go on indefinitely and about twenty-five years ago the Shibboleth of the American Academy of Medicine, fewer medical schools, better ones, fewer doctors and better ones, began

to bear fruit. This shows what progress we have made in the present century.

END OF THE DIPLOMA MILLS

"The number of medical schools in the U. S. in 1900 was 162, more than elsewhere in the whole civilized world—some of them private diploma mills. In 1925 there were only 80 regular medical schools and practically all of them required two or more years of college work in addition to a four-year high school course for admission. In 1904 the number of medical students was 28,142. In 1925 the number was 17,728. The number of medical graduates in 1904 was 5,747. In 1925 it was 3,700, about two-thirds in spite of increase in population, and of these over one-half had an A.B., or B.S., degree.

"As to the Buffalo Medical College, I am happy to state that it has fully kept up with the procession and now stands high in 'Class A.' I graduated at Buffalo in the spring of 1867, remaining in the hospital as resident physician till fall when I carried out my original intention and entered the medical department of Columbia University, New York City. The institution, then as now, was one of the most prominent and one of the best medical schools in the country. We had on our faculty such names as Alonzo Clark, Willard Parker, Henry B. Sands, Abraham Jacobi and many other able men. The educational standards and especially the chemical facilities were considerably better than at Buffalo. I received my 'ad eundem' degree in medicine there in the spring of 1868 and took the train for Madison, Wisconsin, where my parents then resided. I was now a full-fledged doctor. Moreover, I was engaged to a Buffalo girl and we planned to be married in the fall. It was now quite essential that I should select a suitable location for practice where we could set up housekeeping and earn enough money to keep the wolf from the door."

"Why didn't you locate in Madison at once?" I asked.

"I don't remember why I did not seriously consider Madison where I had taught school and had several relatives. But, after the Civil war, and until the '80's, Madison was quite generally considered a 'dead' town. Then, too, I might have had some misgiving as to my success in this untried venture and a failure in some other place would be less embarrassing. I canvassed a good share of the towns in southern Wisconsin, northern Illinois and then took the steamboat up the river, calling at some of the river towns and finally arrived at Minneapolis. It was by previous census a town of seven or eight thousand and growing rapidly. It seemed an ideal location. I wrote my Buffalo girl that we would make it our future home. This prophecy was not fulfilled.

"DISTRESSINGLY HEALTHFUL"

"On my way back to Madison to get my trunk, I left the boat at Winona, Minnesota, to take the train. I then met Dr. Franklin Staples, president of the State Board of Health and a very able and prominent physician of the town. He urged me to locate at Winona. I was not persuaded, but later on my way back, as I supposed to Minneapolis, he persuaded me to go no farther. His argument was that Winona was larger than Minneapolis, which it was by the preceding census and that he could offer me a limited partnership. This last must have impressed me strongly, since it was in agreeable contrast to the reception I had met from most of the doctors in other places. They usually had proclaimed their 'bailiwicks' as distressingly healthful and some even went so far as to state that they had to shoot a man to start a burying ground!

"At any rate, I was married the following October, according to plan, and we remained in Winona three years. We might be there now, but my father, who lived at Greenville, Michigan, was seriously ill and sent for me to come to him. It was a most attractive little American city of three or four thousand and really in need of a good doctor —and I fondly hoped to become one. Father was very anxious for me to come there to practice and I decided to do so, expecting to stay then only a short time, but we remained thirteen years. We enjoyed our life there greatly, as it was a town full of educated and intelligent people and with unusually fine institutions. My practice was largely in the country, which I especially liked and I had plenty to do, which also suited me.

"From the very first of my professional life I was greatly interested in medical society work and shortly after settling in Greenville, I helped organize the Union Medical Society of Northern Michigan. It embraced several counties. I was its first and only secretary so long as I lived there.

"I left it in a flourishing condition. The deci-

sive factor in my decision to give up my practice in Greenville and go to Madison was the presence there of the state university. We had four children and we argued that if we could manage to live in Madison at all, we would be able to give them all equal educational advantages. We hated to leave our pleasant town, but we packed our belongings in a freight car and arrived at the Madison station, March 10, 1885—a valuable date for our family! We have never regretted the change and we now brag about the town as lustily as the 'oldest inhabitant.'

TWENTY-FIVE YEARS OF SERVICE

"The State Medical Society met at Madison that year and naturally I became a member. I was elected secretary of the society four years later in 1889. Then began a service in behalf of the Society lasting until 1914, twenty-five years. As the years went by my official duties entailed some sacrifice, naturally, but the compensations of the office more than made good any loss. I have never regretted for a moment any feature of my official life. The Society then consisted of about 200 members and I was enabled to become acquainted, very often intimately, with nearly all of them. There weren't over half a dozen active county medical societies in the whole state and none were affiliated with the State Society. We had no official journal and about the only way to secure new members was to send widely programs of the annual meeting, with a cordial invitation to join our number. I knew the personnel of the society so well that I was able to spot the newcomers to our meetings at once, and few escaped my personal solicitation. The membership increased year by year until when the new policy was adopted requiring membership in the county societies as a necessary condition of membership in the state society and the American Medical Association, it amounted to five or six hundred. After this our number rapidly increased; the present membership is close to 2,000.

"For a number of years the task of preparing the program for the annual meetings fell to the secretary since he was (ex-officio, I suppose) made Chairman of the Program Committee. This brought me into most pleasant and intimate relations with the successive presidents of the society, whose friendships I still fondly cherish. Such names come to me as Epley, Reineking, Mackie, Ladd, Bemies and others who have gone before, as well as Washburn, Redelings, Evans, Brett and others who are honored names still with us.

"One of the most enjoyable features of my secretaryship was the intimate and friendly relations which sprang up between my office and the different county secretaries. In our common work and interest they became personal and often intimate friends. With the change in policy, it was necessary to organize the state into fifty odd county societies and afterward to assist in maintaining their morale and membership. This was largely pioneer work but indispensable and fundamental to the progress of medical science. Nearly all of these societies have had a continuous existence and have gradually grown in numbers and efficiency, especially in the cities of the state.

"Until the advent of our official journal, it was my duty also to edit the papers and correct the proofs of 'The Annual Volume of Proceedings' of the Society. Although this was largely a labor of love, I willingly relinquished this function when it was transferred to the Journal office in Milwaukee. We, at all times, emphasized the social element and the Annual Banquet and Smoker afforded an opportunity for making many new acquaintances and friends. We always had plenty of singing and the rousing chorus of "The Saw-bones Choir" is still a joyous memory.

"One of the most treasured experiences of my office was the long companionship and friendship with Dr. 'Sid' Hall of Ripon. He was treasurer of the society both before and several years after my official life, 35 or 40 years. We usually roomed together at the meetings and had great fun in playing practical jokes at each other's expense, whenever possible. Last year we gave Dr. Hall our blessings and our heartfelt best wishes when he left us for Minneapolis where he is still honored, as he was here.

"One of the benefits I conferred upon the society was my wise choice of an assistant secretary. I had noticed that Dr. Rock Sleyster, a young county secretary, had manifested an unusual interest and initiative in his medical society work. I met him at a Madison meeting and asked him to act as my assistant secretary and also to organize an annual meeting of the county secretaries. He more than fulfilled expectations and speedily established a reputation for genuine usefulness and efficiency. He was the natural and inevitable choice as my

successor and more than sustained the best traditions of the office."

"Tell me about the most memorable meeting of the State Medical Society," I urged.

"To tell the truth, I don't recollect that any meeting stands out as especially exceptional in that regard," responded Dr. Sheldon. "And as to excitement, during my 'consulship' we sternly frowned upon all factions and medical politics, so that peace and harmony generally characterized our gatherings. This is as it should be. Our State Society has always been unusually free from internal discords. There was some dissent when membership in county societies were made obligatory, so to speak, but it is now generally admitted that the plan was a wise one and has worked well."

ESTABLISHED THE MEDICAL SCHOOL

"What other medical advances has the society fostered?" was asked.

Dr. Sheldon pondered a while before replying.

"As a matter of record, early in my official life, about 1890, Dr. J. M. Dodson, then practicing in Madison, first suggested to me the plan of a premedical course in the state university. He remarked that we both had boys who might wish to study medicine in the future and that such a course was desirable on general principles. He prepared and offered a resolution which was adopted by the society, providing that a committee of six members from the Society and the University should draw up a plan for the consideration of the Board of Regents. The University faculty agreed to it and the following committee was appointed: Drs. Birge, Daniels and Davies from the University and Drs. Dodson, Brett of Green Bay and myself from the Society. We met in President Adams' study and the course then formulated was adopted and in force until the regular two-year medical course was instituted several years later: also by the joint action of both bodies. While the Society has fostered many proposals in the interest of public health, this one stands out in my memories as one of the most important."

"Can you give some of your personal reflections regarding the life of the profession during these last sixty years?" I asked, when the doctor hesitated.

"TREMENDOUS PROGRESS"

"Of course, the most outstanding fact is the tremendous progress we have made during this period, notably in the domains of pathology, diagnosis and surgery, with vastly increased power and opportunity for useful and beneficent service for humanity," he responded. "I have already mentioned some of our accretions of knowledge of which the discovery of bacteriology alone was sufficient to revolutionize the whole practice of medicine. To name only a few of comparatively recent discoveries we have the invaluable X-ray; the antitoxins for diphtheria, rabies, tetanus; our control of typhoid, yellow and even scarlet fevers—as well as syphilis, and far more rational notions of the nature of disease in general. Moreover, in this wonderful age, there is every indication that other discoveries of equal value may be confidently anticipated in the future.

"In addition, we have our splendidly equipped hospitals and laboratories, which relieve us of the greater part of the labor and duties which formerly fell to our lot. We have machines and instruments of precision without number to aid our senses and to increase our efficiency. All these things are greatly to our personal and professional advantage, in every way. It remains with us to make the best and wisest use of all these additions to our armamentarium, more than all, to fully realize that all this knowledge and these opportunities involve corresponding and accompanying responsibilities.

"We should be on our guard lest these many agencies which work for us shall not tend to make our medical life and service too easy and self-indulgent and lest we forget that, in the past, only hard work, and even much personal sacrifice have brought the truest and highest success in all human activities. For example, is it not possible that we might give too great significance and value to our machine findings to the neglect of our faculties of minute observation and careful reasoning? If we depend too wholly upon our machinery is there not danger of a mechanical—a machine-like profession? For machinery cannot and must not take the place of our minds.

THE GLORY OF THE PROFESSION

"In the past, it has been the glory of the medical profession that human service has far outweighed the temptations of material gain: that while ministering to the ills of humanity, to the best of our ability, we exacted only a fair and just financial return—'a quid pro quo,' even as the merchant, or the farmer, or the mechanic asks a reasonable price for his goods or his services. The amount of our

charity work has been and still is very large. Among many intelligent laymen I hear the charge that the professions is becoming commercialized (which is far worse than becoming mechanical!). If this charge is in accordance with the facts and especially if this tendency is at all general and wide-spread, it should give us serious concern for we cannot afford to be or to be considered as mainly interested in filling our own pockets! The highwayman frequently holds people up the papers tell us nowadays—but no true or honorable physician can afford to do the same thing in a different manner.

"My sixty years of experience have firmly convinced me that of all the so-called professions, it is today by far the most desirable and that potentially it can give more of real comfort and happiness and can offer more of genuine service to the human race than any other. With such a background and such a goal before us we can do nothing else than adopt the motto of our beloved state—'Forward!' And, as each works out his own destiny in his appointed place, may we all remember that we are members of a great and noble profession and that its character and progress are absolutely determined by the character and ideals of its individual members. If we worthily meet this challenge, I shall be encouraged to believe that my dream and hope of a medical profession made up of 'educated gentlemen' may be completely realized. A gentleman, you know, is a person who treats everyone gently, kindly, more than all, justly and with human consideration."

Health in Wisconsin Industry

"We have learned that improvement of health pays big dividends for both the employee and employer."

BY F. W. BRAUN
Safety Engineer
Wausau

Health in Wisconsin industry has long been given secondary consideration as compared with accident prevention. Nevertheless, employers of labor in Wisconsin have accomplished much in this respect, especially during the past few years.

The Industrial Commission, which in 1911 replaced the old Labor Department, was given authority to pass orders having the effect of law in the regulation of health conditions and prevention of accidents in the industries of the state. The statute creating the Industrial Commission provides the following:

"Every employer shall furnish employment which shall be safe for the employes therein and shall furnish a place of employment which shall be safe for employes therein and for frequenters thereof and shall furnish and use safety devices and safeguards, shall adopt and use methods and processes reasonably adequate to render such employment and places of employment safe and shall do every other thing reasonably necessary to protect the life, health, safety and welfare of such employes and frequenters. It shall be the duty of the Industrial Commission and it shall have the power, jurisdiction and authority: To ascertain and fix such reasonable standards and to prescribe, modify and enforce such reasonable orders for the adoption of safety devices, safeguards and other means or methods of protection to be as nearly uniform as possible as may be necessary to carry out all laws and lawful orders relative to the protection of the life, health, safety and welfare of employes in employment and places of employment or frequenters of such places of employment."

PRACTICALLY ALL WHEELS ARE NOW AMPLY GUARDED. NOTE THE GUARD OVER THIS EMERY WHEEL AND THE GOGGLES FOR PROTECTION OF THE EYES.

IMPROPER SYSTEM OF LIGHTING. THE FLOOD OF LIGHT IS DIRECTED INTO THE EYES OF THE PEOPLE THAT ARE WORKING.

Under the authority thus vested in them, the Commission appointed committees of employers and employes for the purpose of fixing standards, rules and orders to govern the safety of employes. Practically the entire activity of the Commission was directed along lines of accident prevention, because it was considered and in fact is of considerably more importance from an economic viewpoint, and not until that field was thoroughly organized was more attention paid to supervision of health conditions.

Then came laws regulating hours of employment for women and children and the Industrial Commission issued many orders covering widely the field of sanitation, ventilation and lighting. Also an amendment to the compensation law, including under its provisions, in addition to accidental injuries, all other injuries including occupational disease growing out of and incidental to the employment, gave further stimulus to the regulation of health conditions.

Failure on the part of an employer to comply with these orders and recommendations of the Industrial Commission, subjects the employer to a fine. Also the compensation law provides that where an injury or an occupational disease is caused by the failure of the employer to comply with any order of the Commission or a statute of the state, the employer personally in addition to the compensation to be paid to the injured employe or his beneficiary by the insurance company, shall pay an amount equal to 15 per cent of such compensation as a penalty for violation of the law.

In addition to results thus obtained through legislation and regulation by state authorities, employers of labor have on their own initiative made rapid strides in the improvement of health conditions affecting their employes. This is due to their desire, from an humanitarian standpoint, to provide pleasant and healthful surroundings for employes and further to a realization and appreciation of the fact that improvement of health conditions among employes pays big dividends in increased production. Healthy surroundings make more efficient workers and more efficient workers are a distinct asset to any employer. For these reasons Wisconsin employers have advanced, in many instances, far beyond the compulsory state regulations.

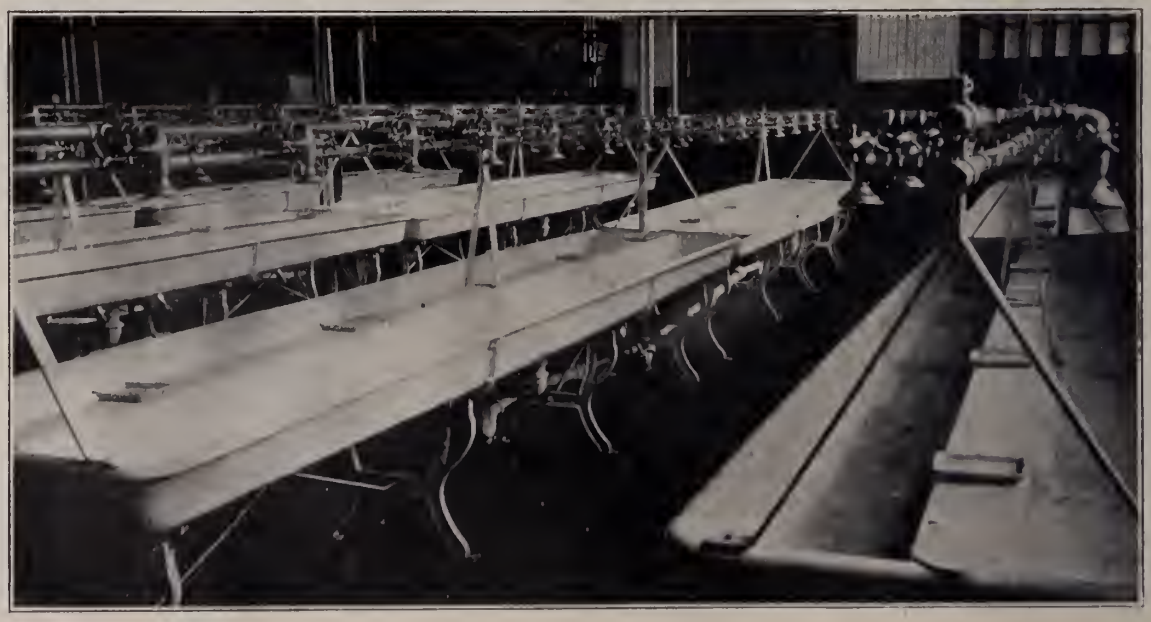
Practically all of the larger plants and organizations in the state have within the past few years installed personnel departments in charge of competent employment managers. First aid dispensaries and plant hospitals with trained nurses in charge have in many cases been provided. Some employers have gone so far as to render free medical service and advice, not only to employes for conditions not incidental to the employment, but also to the families of employes.

Manufacturers engaged in some of the more

A PROPER SYSTEM OF LIGHTING ELIMINATING EYE STRAIN AND THE HAZARDS THAT LIE IN SHADOWS.

hazardous processes, from a health standpoint, are examining their employes periodically at their own expense to detect at an early stage any evidences of diseases to which employes may be subjected, and thus effect prompt relief and continued employment. Certain industries require the use of poisonous substances or material. Manufacturers have taken steps to eliminate these dangers to health—in some cases having through investigation and analysis, found a substitute material that can be used as efficiently.

There are many cases of the installation of special ventilating systems to carry off dust and poisonous fumes. Such precautions check some



WASH ROOMS FOR EMPLOYEES ARE NOW KEPT IN A SANITARY CONDITION WITH MODERN CONVENIENCES AND PLUMBING.

MANY OF THE FACTORIES TODAY HAVE MODERN CAFETERIAS, WELL LIGHTED, AND WITH EVERY SANITARY CONVENIENCE. HERE THE EMPLOYEES FIND GOOD FOOD WELL PREPARED.

of the causes of industrial diseases at their source. Other precautions include adequate washing and bathing facilities and insistence on the part of the employer that they be used. In the erection of new buildings health conditions are given primary consideration. Architects are instructed to fit the plant to the process, rather than the process to the plant. Sanitation has become an important item in every industry.

Employers are ready to install systems or devices that will further improve health conditions and are willing to list the cost as a legitimate expense. Future developments will be welcome. Wisconsin has for many years been a leader in the field of accident prevention and has also become a leader in the improvement of industrial health conditions.

Thirty-Eight Million Times Every Year

"The Captain of the Men of Death challenges the people of Wisconsin and the people can win if they will."

BY OSCAR LOTZ, M.D.
Wisconsin Anti-Tuberculosis Association

Yes, we must admit that even in the present era of big figures, thirty-eight million is something to think about. Seventy-two times a minute, 4,320 times an hour, 105,680 times a day, and 37,843,-200 times every year does that little human pump of ours, the heart, contract and expand regularly to force the blood into every part of the body and back again.

Even with the most conscientious and painstaking care and under the most ideal conditions it is difficult, if not impossible, to visualize any piece of machinery keeping on at this pace year after year for fifty, sixty, or eighty years. And what care do we give this wonderful piece of mechanism of ours? Practically none until it begins to "miss" or "knock" or in some other way makes known the fact that the engine is not running smoothly.

Considering then these two facts, the tremendous amount of work performed by the heart year in and year out, and the very little attention given to its care by the owner, is it any wonder that deaths from heart diseases have increased and increased until at the present time the number of people dying from these conditions is greater than that of any other cause? Up to ten years ago Tuberculosis was ever the "Captain of the Men of Death" but since that time "Heart Disease" has gained the highest rank and has consistently made its position more secure year after year. Consider again the terrific speed and high tension of the modern way of living and working, and it does not seem so surprising that our newspapers almost daily announce the "death from heart disease" of one or more well known individuals.

Seventeen years ago when the Wisconsin Anti-Tuberculosis Association was first organized to represent the people of Wisconsin in the fight against the "Great White Plague," even the staunchest and most ardent supporters did not

"Tuberculosis has been pushed from its place as arch-executioner. In its place, in most parts of the country, is heart disease, now the chief cause of death in these United States. Fortunately heart disease is often curable. It is preventable. But the effort to cope with it must run the gamut of the seven ages from childhood when it is to be prevented, through the middle years when it may be arrested and cured, to old age when its disabilities may be alleviated. We are on the threshold of an onslaught upon it which promises rewards as rich and startling as those of which the tuberculosis campaigners dreamed daringly twenty years ago."—Haven Emerson, M.D.

dare to dream that the death rate of this disease could possibly be reduced to what it actually has been within less than one generation. While unquestionably many and various factors are active in the reduction of this disease, we cannot deny that the splendid work of the anti-tuberculosis workers, in continually presenting to the public the scientific facts believed to be responsible for the development of tuberculosis, the education of the people in the early signs of the disease and the development of the chest clinics for the early discovery of tuberculosis, have materially aided in the downfall of the "Captain."

In 1915 a group of New York physicians, realizing the significance of the ever increasing number of deaths from heart diseases, and appreciating the great amount of invalidism produced by diseases of the heart, formed the New York Heart Association with the hope of developing an organized movement against this rapidly growing enemy of mankind. Although retarded somewhat by the war, the idea continued to grow. In 1922 sufficient interest was manifest to organize the American Heart Association with local branches in many of the larger cities of the country.

A CLOSE RESEMBLANCE

At first glance "tuberculosis" and "heart diseases" may seem to have very little in common but a closer study, especially when viewed from the public health standpoint, will show that after all there is considerable resemblance between these two conditions.

1. *Tuberculosis is due to an infection by the bacillus of tuberculosis; from 70 to 95 per cent of cases of heart disease are due to infectious diseases.* The most common of these infections are rheumatism, tonsillitis, syphilis, scarlet fever, influenza, diphtheria, and conditions due to local infections of the teeth and sinuses.

2. *Tuberculous infection usually takes place during childhood; organic heart disease most frequently dates back to an infection in childhood or early adult life.*

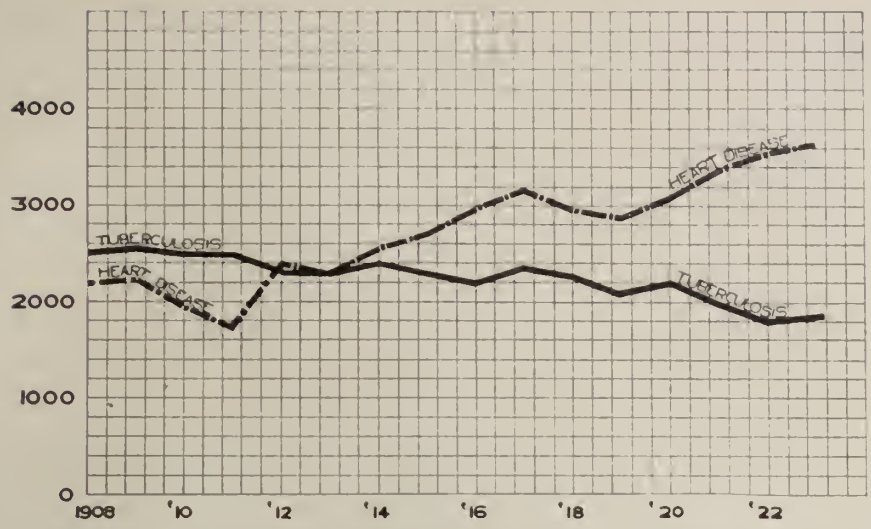
3. *Tuberculosis is frequently brought on by poor bodily habits, unhygienic methods of living, excesses which deprive the body of the necessary rest and relaxation; heart diseases more readily follow infectious diseases when the body is in poor physical condition.*

4. *Tuberculosis is communicable; tonsillitis and syphilis are definitely communicable.* Dr. Haven Emerson says, "If we make a study in the families from which acute cases of rheumatic heart disease have been admitted to hospital care or to dispensary supervision, we shall find that fifteen per cent of the 'contacts' (those in the intimate circle of the families) will commonly give a definite story or show physical evidence of attacks of acute rheumatic fever, or of tonsillitis, or of chorea either with or without accompanying affections of the heart."

5. *Tuberculosis is preventable; many of the infections producing heart diseases such as tonsillitis, acute rheumatic fever, scarlet fever, diphtheria, syphilis, are almost entirely preventable;* the excessive use of alcohol, tea, coffee and tobacco—also factors in the production of heart diseases, are likewise preventable.

6. *In the majority of cases of early tuberculosis a cure or an arrest of the disease can be obtained; some cases of heart disease are wholly curable, while many may be brought to an arrest by intelligent treatment.*

7. *A patient who has once had active tuberculosis is said to be a "'lame duck"; in the majority of cases of heart diseases it is "once a cardiac, always a patient."* In other words the majority of arrested cases, whether of tuberculous or cardiac nature, have their physical efficiency decidedly reduced as a result of these conditions. If these limitations are appreciated and given due consideration, the patients are able to lead useful as well as happy lives. On the other hand breakdowns are frequent if the disability is not respected. Periodic physical examinations are imperative for both patients if the proper balance between working efficiency and disabled lungs or heart is to be maintained.



Showing how the number of deaths from heart disease in Wisconsin has increased and the number of deaths from tuberculosis has decreased since 1908. Figures taken from federal statistics.

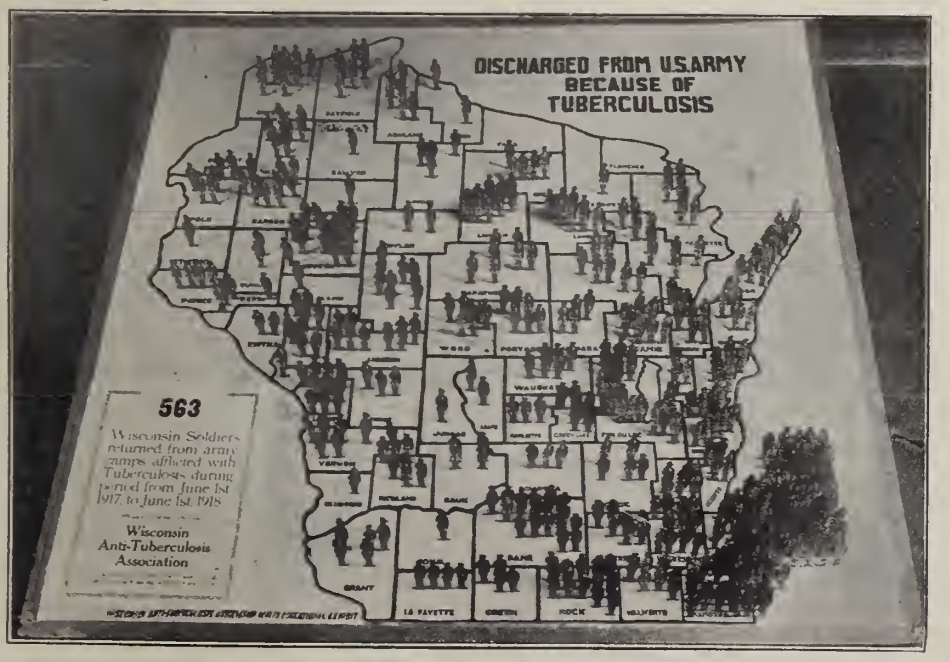
8. *Early discovery leads to prompt recovery in tuberculosis; in heart diseases early discovery of causative infections leads to its prevention.*

Other conditions of similarity might be added, but enough have been presented to indicate that the problem of heart diseases does not differ so materially from the problem of tuberculosis.

WE MAY LOOK FOR GAINS

The first and greatest services that the organized campaign against tuberculosis rendered to mankind was: (1) Arousing the public to a realization of the horrible death and sickness rates which, up to that time, were taken as a matter of course, and were thought to be inevitable, whenever any thought whatsoever was given the subject; (2) keeping the aroused fighting spirit alive by patient and persistent educational and demonstrational projects.

The greatest need of the public in respect to heart disease, today, is similar attention to the manner in which *this* great health menace has crept upon them almost equally unawares. Made aware of what medical science has to promise in prevention, occasional cure, and frequently alleviation, *we may look for gains against heart disease similar to those which have been made against tuberculosis.*



Fighting Diphtheria at Nome

HERE is the little hospital at Nome in which patients suffering from diphtheria were quartered during the epidemic that aroused the world. When diphtheria antitoxin became available, the epidemic was quickly controlled.

And here is the dog team driven by the famous Alaskan "Musher," Kasson. Recently when Kasson came to Los Angeles with Balto, the "lead dog" of the famous team, the mayor of Los Angeles presented Balto with the "bones" of the city. He appreciated them more than the notables usually appreciate the legendary keys. The world will always remember how antitoxin was carried to Nome, not only because of the heroism of the feat, but also because it was proof of the way in which scientific medicine aids in time of stress.

International

Hygeia, 1925

Combating Smallpox in the Lumber Camps of Wisconsin

"It is the unvaccinated person who keeps the disease alive and spreading."

BY A. V. DE NEVEU, M.D.
Deputy State Health Officer

It was in the early dawn of medical literature that we have our first written evidence of a scourge that has from time to time swept sections of the earth of a considerable portion of its human life. This disease which has from the beginning been given a name to describe the characteristic disfiguration of the skin, we now know as smallpox or variola.

In China 1,000 years B. C. the name smallpox was used and temples were erected and sacrifices made to the goddess of the disease; this was also done in Hindustan. In India tradition tells us that this disease had existed among its people since time immemorial, and in the later civilization, as the Greek and Roman, we also have evidence that it existed as in the great epidemic which swept Europe from the years 570 to 582 A. D. mentioned by Bishop Marious of Laussanue and by Bishop Gregory of Tours who called it "Leus Cum Vesicis."

In the year 544 A. D. "a new disease" appeared in Egypt and from the poor to the rich this disease took its toll. It is mentioned that Caliphs and Caliphs' daughters were pitted and had white spots in their eyes. In 569 A. D. smallpox appears to have broken out in the Abyssinian army at the siege of Mecca and so great a toll was taken among the besiegers that the siege was lifted.

And so the history of smallpox goes from its beginnings to Africa and Europe and from early times into the middle ages. It was during this last period that we hear of more of the destruction brought by this "Pestilence."

Later, there were several epidemics in Europe, among these were the Roman epidemic in which 6,000 persons died, the epidemic in Germany as described by Dr. Junkur of Halle, which took the lives of 65,220 from the year 1796 to 1798, and in 1803 King Frederick William III of Germany stated that 40,000 people died in his kingdom of smallpox yearly, and in Denmark in the year of 1707, 18,000 people out of a population of 50,000 died of smallpox and in 1734 in Greenland nearly two-thirds of the population died of this disease. In a speech before the House of Commons, Admiral Berkley said, "It is proved that in the United Kingdom about 45,000 persons died annually from smallpox; but throughout the world what is it? Every second that is struck by the hands of time a victim is sacrified upon the altar of that most horrible disease, smallpox."

From Europe let us look to America. Smallpox was introduced into America by the Spaniards fifteen years after the discovery of this country and it is estimated that in the next few years in Mexico alone, 3,500,000 people died of this disease. Whole tribes of natives were exterminated leaving no one to tell of the suffering and horror of their extermination. Robinson in referring to smallpox among the South American Indians states that the disease was so fatal that their population in a few years was so reduced that it appeared almost increditable.

Catlin states that of 12,000,000 American Indians fully 6,000,000 fell victims of smallpox, for example the Assinaboins, a tribe of 9,000 souls was nearly exterminated.

I am in possession of a document written in the year of 1838 which states that at the first payment of the land granted to the Menominee Indians on their own reservation in 1838, there were present practically all of the tribe (in number about 3,000) and that the year previous, 1837, half the tribe had died of smallpox.

So we find that smallpox from year to year and from century to century kept up its merciless attack until Dr. Jenner, an English physician in the year 1798 discovered the method of prevention through vaccination. (This treatment was not put into universal practice until a few years later.) Since that time in many countries, vaccination has been used and we find smallpox has decreased in proportion to the thoroughness in which the inhabitants are protected by vaccination. Smallpox has in later years so decreased in frequency, virulence and fatality that we no longer consider it with the dread that it produced in the century before vaccination had formed its first line of defense.

At least seventy-five per cent of the population of China live in shanties like these. It is small wonder that smallpox takes a heavy toll. Hygeia, 1925.

But from time to time a virulent type has worked its way into certain sections of the country as occurred in 1924 in our sister state, Minnesota. Before realization of the type had been instilled into the minds of the citizens and before vaccination had accomplished its full force as a protective measure, certain individuals infected with this disease had pushed their way into the heart of northern Wisconsin, spreading the infection among the unvaccinated in cities, villages, schools and lumber camps. Upon receipt of this information, the local Boards of Health and the State Board of Health immediately commenced to build and strengthen its first line of defense through the agency of vaccination.

ON THE FIRING LINE

So it was on Tuesday, January 20th, word was received that in certain lumber camps around those owned by the Hines Lumber Co. of Park Falls, several cases of virulent smallpox had appeared. In the afternoon of January 23, 1925, Dr. J. T. Speck, the company physician and I left Park Falls for the front. Our first stop was Loretta, the new and modern headquarters of the Hines' lumber camp. Here we entrained for camp A, (a "car camp") which was 18 miles away. Arriving at the camp at five, we had supper and were given a room for the night. At Loretta we were joined by Mr. Baker, assistant superintendent, and Mr. L. L. Worth, the woods' superintendent. After eating a hearty meal we prepared and vaccinated 99 men, 100 per cent. (Three miles distant was a camp where smallpox existed in virulent form.) I wish here to describe what is called a car camp as it is a lumber camp of the modern and sanitary type. In drawing a comparison between the older type of camps and the modern, it should be understood that all new camps are not of the sanitary type.

It was late afternoon when we arrived at camp and as the caboose was loaded with "jacks" our party occupied the cupola which was hot and the air full of tobacco smoke, so it was a pleasure to climb out into the fresh air of a northern forest. We were taken into our rooms, I say "rooms" as in the car camp there are rooms in which four men sleep in double decker cots. Each room was lighted by one window. In the construction of these camps, first a tressel of ties is made in order to raise the cars about 2 or 3 feet from the ground. When the cars are mounted upon the structure a space of about 16 feet is left between two parallel rows of cars and this space is floored with heavy planks forming a long hall-like structure with cars on either side. At the end of the street are the stables and store houses, then the offices, wash

THE CAR CAMP.

rooms and bunk cars. In these bunk cars a hall runs the length of the car on one side and the rooms open off from this hallway. There are also dining rooms with long tables running from one end to the other, or the tables placed crosswise and a passageway on one side. In these rooms you can always find a sign which reads "No talking during meals."

At the end of the street is an engine and power plant that supplies steam heat and electric light as well as water for the washroom. Here we found the men in line that they might apply soap and hot water. In this car are also facilities for bathing, and washing clothes. The street between the cars, the stables and other cars are all lighted by electricity and as this light is turned off at nine we retired, after arranging for an early start the next morning. When we awoke at five-thirty January 24th the camp was up and preparing for the day's work and as this was the morning of the eclipse of the sun we had an exceptional experience.

It was dark as we left the street to go down the tramway to the track where we were to wait for the locomotive in which we were to make the day's journey. As we turned and looked back at the camp and saw the brightly lighted "white way," saw the troops of men armed with saw and ax and the dozens of teams of horses tramping their way into the gloom of the majestic forest where they were swallowed up in its gloomy depths, we could not but have a feeling of awe at the beauty of the scene. Then way down the track came a bright headlight and screeching its way through the

THE SANITARY DINING HALL OF THE CAR CAMP.

THE BUNK HOUSE OF CAMP 10.

canyon of great trees, came our locomtive. As we climbed aboard, the gray dawn was giving way and streams of light shot their rays into the darkness of the surrounding forest.

Our next stop was at camp 31, fifteen miles away. There we vaccinated 114 men, leaving again at nine for camp 35 where we vaccinated 107 men. Here we had the opportunity to study one of the largest of the old type camps. This camp is much like camps 31, 32, 36 and typical of the old type. The buildings were made of logs and were from 75 to 125 feet long and 25 to 30 feet wide with bunks in rows on either side the whole length of the buildings. The light was furnished by windows at both ends. Ventilation was furnished by wooden ventilators placed along the ridge of the roof. The floors are of boards which are not matched and in many instances are not closely fitted. In the center or at either end are large box heaters which heat the air in their vicinity sufficient to dry the wet clothes or rows of socks that are hung on poles fastened crossways of the structure.

As the day is over and the work is done, the men gather in these houses and for a brief period, in the dim light of the oil lamp write letters, tell stories, smoke and rest. The necessity for spittoons is plainly apparent and these are furnished in the form of boxes partly filled with sawdust.

MUZZLE LOADING BUNKS

There are two kinds of bunks. The "muzzle loader" or dog house sort of bunk is double decked and the men crawl in head first. This type is not allowed in these camps and when found by the State Health Department are condemned. The other type of bunks are arranged like the sleeping apartments on the railway sleeper. In some of the camps straw is supplied as a matress and in others the regular mattress is used. In many instances the straw is best, when we realize the great "turn over" of men in the modern camp and the possibility of their becoming infected by vermin. The straw in these bunks of a well regulated and sanitary camp is taken out and burned and the buildings washed and fumigated at regular intervals. But I have seen bunk houses where this straw had been left in all season, as was the bedding. When this condition is found the owner or superintendent of the camp is made to erect poles immediately that the clothes may be aired, and other unsanitary conditions are remedied. Among these are dirty floors, slop holes and garbage piles in the immediate vicinity of the doors of the cook shack or store houses. In these unsanitary camps

SUPPER AT CAMP 10.

the toilets, such as they are, are in close vicinity with the buildings and of a crude structure and constitute a constant menace to health.

The sanitary conditions of the camps visited on this trip were better than many of the older camps. In a lumber camp is found every type of man from the old "jack" who has spent the greater part of his life in the service, to the "floater" who makes it his particular business to see how many camps he can make in a season. Here also are many nationalities, from the fair skinned Scandinavian to the Indian, and from boys in their teens to old men who do not look physically fit to withstand the vigorous winters in this strenuous occupation.

The "cook shack" was built like the bunk houses and at meal time the long tables are piled high with good wholesome food and the cook and assistants, white aproned and capped, are kept busy preparing and serving this food which we found to be excellent. Outside of the music of the rattling dishes and the busy utensils there was little noise, discussion or oration as there was but one thought and this was being duly exemplified.

After leaving camp 35 we visited camps 36 and B where we arrived at five in the afternoon, and in these camps we vaccinated 139 and 111 men respectively. Camp B is a car camp and similar to camp A.

Here we stopped one night and at seven Sunday morning left for camp 32 where 140 men were vaccinated. Travel between camps was made by locomotive or by sleigh. The day being warm the sleigh trip was very interesting as we travelled a road through some very fine timber, hard and soft, whose great trunks towered heavenward in all the majesty of a primeval forest. We felt repaid for our trip and labor. We also saw innumerable game tracks but "nary" a sight of the game. From camp 32 we took the locomotive to two loading camps and vaccinated the men present. (In the two days 727 men had been vaccinated.)

At three thirty we left the loading camp and took a "go-devil" in a blinding snow storm which so impeded our way that it was often necessary to assist and at one place while travelling at a good rate of speed we left the rails and then had to replace the cars on the track again. Thus we made our way toward home. It was at this time that we saw a fine buck standing in a small clearing and posing as for a picture. He watched us until we were out of sight.

A MODERN CAMP

Our next stop was at Loretta, the most perfect logging camp I have ever seen. As it was late and the storm severe, we went on to Park Falls where we arrived at eight. (Dr. Speck vaccinated the men in the Loretta camp within a few days.) This camp at Loretta is a permanent camp and it is built entirely of concrete and surrounded by a high wire fence.

The buildings are erected in a row and are as complete in structure and arrangement as the most modern buildings or village. The water is

THE CAMP AT LORETTA.

supplied from a deep driven well and is tested frequently to be certain of its purity. Electric lights, hot water for the shower baths and steam for heating the buildings are furnished from a modern plant. The sleeping houses are large, well lighted and equipped with modern double deck iron bunks with very good mattresses. The cooking department is as complete and sanitary as any in a modern hotel and the dining rooms are a model for cleanliness and sanitation. The floors in these buildings are concrete and kept as clean as scrub brush, soap and water can keep them. The sewage for both kitchen and the sanitary toilets is properly cared for and the barns and stables would be a model for the best of farms. Surely this camp is a picture of proper constructive sanitation and comfort that deserves great credit.

The results of our vaccinations were very gratifying as we subsequently learned that despite the fact that hundreds had been exposed no epidemic developed. The fact that an epidemic did not develop was due only to the prompt vaccination of the men.

After having talked with several of the older lumbermen who had been through smallpox epidemics in lumber camps, we could not but feel thankful that we had such a good weapon with which to fight this disease and that we had but a small number of cases develop. In other words our weapon, vaccination, on the fighting line had been effective and the foe, smallpox, defeated. This was not different in results from a number of other districts in Wisconsin where men from the Minnesota epidemic region drifted in and exposed many hundreds of people. The campaign of vaccination that was instituted (thousands of children and adults were vaccinated) prevented a state-wide epidemic in Wisconsin.

One very instructive instance was that of the Indians of the Bad River Reservation where a few cases developed and forty per cent of these cases died. Vaccination of several hundreds of Indians resulted in an immediate stopping of the disease and the prevention of an epidemic. As was pointed out in the First Annual Lay Issue of this Journal two years ago, "it is the unvaccinated person who keeps the disease alive and spreading."

THE BUNK HOUSE AT LORETTA.
A fine example of great advance in clean and comfortable camp accommodations.

The Growth and Value of the Medical Examination

"Through educational efforts and practical demonstration we are awakening to the fact that we can make Health, instead of Disease, contagious."

BY WILLIAM A. FRICKE

Former Commissioner of Insurance
State of Wisconsin

Life insurance has done much for medicine and medicine has done much for life insurance. Both have profited by their experiences and the balance sheet shows a decided gain for humanity.

Life insurance is young in years; in this country its age is no more than eighty-two years. The oldest company in the world has an existence of only 162 years, and when organized—as an experiment to transact the business of life insurance—it was for many years a feeble, wobbly, discouraging effort, without agents, or medical examination as a requirement; in fact, it was not until after an experience of 96 years that the medical examiner became a recognized factor in the company.

Medicine had little to offer at the time this first life insurance company was organized. As a science and profession it was not so far away from the days when *"blasted and planet,"* as a cause of death, meant *"planet struck,"* indicating some wasting disease of unknown cause and nature; *"headmouldshot"* and *"horseshoe-head"* was "water on the brain." *"Calenture,"* a disease said to be similar to *maladie du puys* (nostalgia) said to seize seamen with an irresistible desire to immerse themselves; *"tissick"* expressed phthisis, and *"rising of the lights"* is given as a cause of death. It was not a far cry from the time that "a great multitude of ignorant persons, common artificers, smiths, weavers and women took upon themselves cures, to the high displeasure of God and the destruction of the King's liege people."

Without such researches as those of Bichat (1771-1802) the science of disease would have been impossible. Bearing in mind the date (1762) of the organization of the first life insurance company, and the organization of the first companies in this country in 1843, one need be reminded only of Wichman's first suggestion of the contagiousness of consumption, whooping cough and other complaints; Jenner's introduction of vaccination (1798); Sir Charles Bell's great discovery of the functions of the nerves (1807); Auenbrugger's method of diagnosis by percussion (1808); Laenec's invention of the stethoscope (1816); the introduction of the first clinical thermometer by Wunderlich (1815-1877); the first suggestions by Latour (1836) and Heule (1840) and advocation of the germ theory of disease; the introduction of anesthetics by Wells, nitrous oxide (1844); Morton, ether (1845); Simpson, chloroform (1847); the invention (1851) of the ophthalmoscope by Helmholtz, and Frank's earliest treatise on Hygiene (1779-1819). Hygiene and Sanitation were of slow growth—Charles Dickens remarked: "Whoever has insured his life may live over a cess-pool."

And so many more instances might be cited—with the continued periodic ravages of epidemics, during which the medical profession in those early days appeared so powerless—but the above evidences how little of helpfulness and value the medical examiner was in the beginnings of life insurance. All of which, however, impresses us as to the wonderful marvelous strides made by the medical profession during the last fifty years.

FIVE DOLLARS MORE IN CITIES

Out of 30 companies commenced in England between 1806 and 1826, twenty were compelled to abandon the business. Not until 1843 was there a real attempt at the organization of scientific life insurance in the United States, and even at that late date it was deemed necessary to impose an extra five dollars per thousand upon residents of large cities because of the dangers from epidemics and contagion, with sharp lines drawn as to residence in southern cities, west of the Mississippi, and the hazard of travel by sea. While in the United States the early companies did require a medical selection, many of the early requirements in the medical blank employed, with experience, became obsolete and were replaced. Slowly and gradually there was built up a mass of information of incalculable value to medicine and the making of the actuary and the statistician invaluable aids to that profession.

Step by step the medical director, the examiner, and the special associations devoted to the study, research and standardization of insurance risks

brought about a wonderful advancement in knowledge and beneficial influence upon the government and the people—worthy of a more detailed presentation of the marvelous achievements contributing, in no small measure, to the progress and advancement of the profession of medicine.

It is a fascinating story, these early beginnings of life insurance, the astonishing growth of which, in so short a period of time, has made life insurance the greatest business in the world. The growth of vital statistics; the study and need originated in the efforts to quiet the fears of the people in the terrible plagues and epidemics; the registration of deaths, with age and cause; and registration of births, aided by introduction and requirement of the periodical census. The first record of such a direct census is that of the United States in 1790 provided for by the first Congress by reason of the character of our Federal Government.

Not until 1838 was the Registrar General's office established in England and the government started inquiry as to the health of towns and in the country subsequently resulting in the appointment of health officers for towns and parishes. It was not until 1866 that the Metropolitan Sanitary District in New York was established and the Board of Health appointed, and not until 1879 did Congress create the National Board of Health, and not until 1853 was vaccination made compulsory in England.

As the mortality experience of the general population became available the premium for life insurance was computed on that basis with the result that the premium was higher than necessary. It was not until 1834 that the first company's mortality experience was tabulated, and not until 1843 that the combined experience of seventeen British companies was compiled and presented as the Actuaries' Table of Mortality. This table, notwithstanding its errors in duplication, permitted a considerable reduction in premium rate, because the lives making up the experience were a selection of the risks accepted for insurance. This period too (1843) brings us down to the organization of the first American life insurance companies, a period still of no great progressive advancement, for we then find cupping and bleeding still a remedy. The follies and lack of knowledge in the past demand no apology; but even at this late day we have with us those who attempt adjustments, while others instead of cutting out early cancer give treatments to forget it; but day by day in every way we are making progress in reducing Barnum's ratio of "one being born every minute."

Gradually there was evolved a Mortality Experience, which compiled into Tables—with the stabilization of interest and investment securities, due to the growth and the needs of commerce and industry—made it possible to create life insurance companies conducted on a certain scientific basis, furnishing certain protection at certain cost.

"EARLY DISCOVERY MEANS EARLY RECOVERY"

So medicine, the medical director, and the examiner with wonderful growth and achievements gradually became a potent factor. And because of the demands made by life insurance companies, the assistance given and the information gained gave back to medicine in return valuable experience. It carried to the people the daily and constant message of the need of correct living, the importance of health, the dangers of neglect, and brought to the attention of thousands upon thousands incipient beginnings, latent and actual conditions and tendencies to disease. It sounded to the applicant for life insurance the alarm and gave the first notice, which in so many, many instances, by prompt attention, resulted in recovery and the saving of life.

May we not credit to the cooperative care of the medical and actuarial departments of life insurance companies the fact that the American Experience Table of Mortality—accepted since 1868 as a standard—has proven more than a safe guide, because of which the refunds of savings to policyholders to adjust the cost of the insurance has become so essential and made the mutual or participating policy the dominant and favored contract, to the extent, that the mutualization of the stock or non-participating company has become the trend in life insurance, as well as forming the basis for all argument for the adoption of a new Table of Mortality showing more nearly the actual experience and as a consequence providing a lower premium requirement under such a standard.

Little thought has been given to the fact that the requirement of medical examination for life insurance has saved many lives, by forcing upon the declined applicant the imperative need of immediate attention to his impairment. These dis-

"A person who leads a sane, normal, healthy life should go to the physician for periodical health examinations on 72 occasions from the time he is born until he is 65 years old. The period of life in which these examinations should be taken follows:

"Prenatal Care. The mother should go to a physician four times to be examined.

From 1 to 2 years old—10 to 12 examinations.

From 2 to 5 years old — Once every 6 months.

From 6 to 16 years old—Once a year.

From 16 to 25 years old—Once a year.

From 25 to 45 years old—Once every two years.

From 45 to 65 years old—Once a year.

From 65 on—Once every six months."

HAVEN EMERSON, M.D.,
Former Health Commissioner, New York City.

coveries have cost the life insurance companies many millions of dollars.

ADDING YEARS TO OUR LIFE

In 1680 the expectation of life was assumed to be seven years between ages 20 to 40, and from five to six years for the aged and sickly. From 1700 to 1780, deaths in London averaged about one in 38 of the population. Through better understanding, new discoveries, and a more complete knowledge in the treatment, prevention and elimination of diseases, extension and enforcement of sanitary and hygienic regulations, the duration of human life was lengthened fourteen years during the nineteenth century; this marvelous attainment continued in the twentieth century and has lengthened the span of life to 58 years. In this great achievement, the requirement of physical examination of applicants and the cooperation of the life companies, has been no small factor.

During the year 1924, more than twenty-five million dollars was paid for these examinations, and the future presents a still greater field for progress and advancement, for stupendous as appears the present volume of life insurance carried in this country, only 7 per cent of the economic value of life is insured, yet seven-eighths of all money left by married men to their families comes from life insurance.

MAKE HEALTH CONTAGIOUS

The daily missionary work of the thousands of life insurance agents and their companies; of the thousands of officials and members of fraternal beneficiary orders and associations; the requirement of medical examination; the helpfulness of the medical examiner—all for years have been a progressive educational force to carry conviction of the importance of the preservation and attainment of health through right living. Then, too, there came an awakening on the part of the companies of the possibilities by educational efforts and practical demonstration to *make Health, instead of Disease, contagious.* This message has been and is being carried into hundreds of thousands of homes by the insurance companies.

Gradually people are becoming wiser. They are learning that disease is very seldom inherited—what may be inherited is a tendency, a lower power of resistance, a predisposing cause; that it is the God given prerogative of a child to be born right—that the greatest duty of the living is not to wreck one's own good heredity, but to leave upon developing germ cells the impress of correct living, for transmission of more ideal tendencies and potentialities to descendants, for development in the continuously more generally favorable environment of present-day civilization.

After all, a recognition of responsibility for the tendencies and potentialities of descendants is a matter largely within our control and is of more far reaching importance than pride of ancestry; for, too often, ancestry, is comparable only to a field of growing potatoes—the best part is under the ground. The good qualities and characteristics of the fathers too, are visited upon the children to the third and fourth generation.

THE MERCIFUL KNIFE

The American Society for the Control of Cancer issues again the oft-repeated statement that the knowledge already possessed about cancer, if people would only use it, would save thousands of lives now sacrificed.

This does not mean that any new cancer "cure" has been discovered or is definitely in sight. It does not mean that there is any definitely established virtue in the frequently heralded "discoveries" of "knifeless" cures.

It means that the avoidance of certain definite sorts of irritation will lessen the likelihood of cancer. And it means, especially, that physicians can now recognize cancer early; that you should go to them early, on any suspicious indication, and that not shrinking from "operation," but early seeking it, is the cure—with the emphasis on "early."

The "horror of the knife" is a mere tradition, from the days when it really was a horror. Now it is a mercy.—Fond du Lac Commonwealth, 1925.

The Oldest Hospital in the World; Hotel Dieu of Paris

BY JAMES A. EVANS, M.D.
La Crosse

It is a far cry from our modern hospitals of America to those of the Middle Ages in the days of the barber-surgeons. Hospitals in those days were merely charitable asylums for the poor sick and often only places for the plague stricken populace to die. Compare then our modern hospital of today with its cleanliness; its staff of physicians, surgeons and technicians; its admirably equipped surgical suites and its every mechanical aid to diagnosis with this description of the hospital of other times.

The Hotel Dieu as it now stands was completed in 1877 shortly after the Franco-Prussian war. It is the fourth time the hospital has been rebuilt. Huge as it now is, it once contained about three hundred beds more than it does at present.

This ancient institution is the oldest hospital existing in the world. There are some in Italy, notably at Milan, and a hospital on the Island of Rhodes, founded by the Knights Templar during the Crusades, which rival it in age. St. Bartholomew's of London recently celebrated its eight hundredth anniversary. But even these the Hôtel Dieu outranks by several centuries.

Its story is that of Paris, or even more, that of France, and certainly it is a mirror of the history of medicine since the fall of the Roman Empire. Thus tradition dates its foundation by St. Landry, Bishop of Paris, in the seventh century, 660 A. D., a century and a half before the crowning of Charlemagne in 800 as emperor of the Holy Roman Empire. One of the wards of the present hospital is named after this same St. Landry. So the Hôtel Dieu may have existed in the reign of the declining Merovingians, before Charles Martel repelled the Saracen power at Poitiers. More nearly accurate history, however, attributes the founding to Bishop Inchad who lived in the ninth century. It antedates the Cathedral of Notre Dame, the corner-stone of which was laid in the twelfth century.

EARLY BEGINNINGS

The hospital was not always called by its present name, being first known as the Hospice St. Christophe, and later as the Hospice Notre Dame. It bore these names up to the twelfth century. In the present hospital there is a Salle St. Christophe. After the building of the cathedral it became known as the Maison Dieu de Paris, because it stood at the foot of the great church, as the old chronicle says—"ante portum ecclesiae" (before the church door).

The site of the primitive Hôtel Dieu was on the Isle de Cité where now stands the statue of Charlemagne and where lies a strip of green parkway bordering the small southern arm of the Seine, across the Place du Parvis de Notre Dame where the present hospital is located. Indeed this was the site throughout all the centuries until the last building was constructed across the square on the other side of Notre Dame.

The primitive Hôtel Dieu of St Landry was demolished in 1184 and replaced by buildings extending along the small arm of the Seine to the right of the doors of Notre Dame. Various royal benefactors during the Middle Ages interested themselves in additions and its maintenance. Among them were Phillipe the August, Blanche de Castille, St. Louis, Charles V, and Louis XI. Nearer our own times Louis XIII, Napoleon I, and Napoleon III were patrons of the ancient Hospice. Professor Gilbert of the medical clinic of the Hôtel Dieu, has several quaint old prints picturing these personages on visits to the sick.

Phillipe the August, who lived in the 13th century and who is chiefly famous in the guidebooks for his ancient wall about Paris, is renowned in medical history for donating all the straw from his Paris house to the "House of God," each time his straw was changed, "in order to make a bed for others."

St. Louis appropriated certain incomes to the support of the institution and granted certain privileges.

Besides royalty, a rich money changer restored the entries at his own expense in 1280. A legate of the Pope, Cardinal Duprat, in 1535 built a new ward called St. Marthe of the Legate. One of the wards of the present hospital still bears the same name.

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[1] I must thank Professor A. Gilbert, of the medical clinic of the Hôtel Dieu, for his kindness in furnishing me the material for this article and for the pleasure he gave me in showing his rare old woodcuts and prints of the Hôtel Dieu, a collection whose value must run into thousands of dollars. The illustrations are reproduced with his kind permission from Clinique Medicale de l'Hôtel Dieu de Paris, A. Gilbert, Hôtel, 19 Novembre, 1910.

FIG. 1. THE NEW HOTEL DIEU, WITH NOTRE DAME AT THE RIGHT.

A JEWEL OF ARCHITECTURE

By the 16th century, then, the Hôtel Dieu had become a building of beauty, possessing on the street facing away from Notre Dame, two beautiful facades side by side, one of Gothic—that of Louis XI—the other of Renaissance style—that of the Legate (Fig. 2).

The entrance at this epoch faced the north on the Place du Parvis in front of Notre Dame, and was at the same time the entrance to the chapel (Figs. 3 and 4). This chapel was also Gothic in style, surmounted by a clock tower, and according to all evidence was a veritable jewel of architecture. As an old "head-master," John Henry, said in 1482 in quaint old French, "The entrance to the House of God which is found at the side of the Sacred House is a little place so strikingly, so richly, and so well decorated with precious ornaments that all those who pass are excited to devotion."

FIG. 2. FACADE OF THE HOTEL DIEU IN THE 16th CENTURY, FROM THE DU MARCHE PALU. (From Hoffbauer in the Musée Cornavala.)

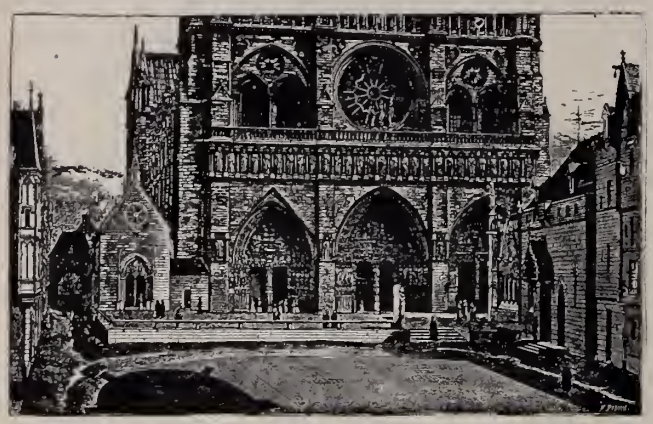

FIG. 3. ENTRANCE AND CHAPEL OF THE HOTEL DIEU FROM THE PLACE DU PARVIS IN THE 15th AND 16th CENTURIES. THE "GRAND GEUSNEUR" OR "STARVED PETER."

In close vicinity to the chapel were several houses whose rent was part of the revenue to support the hospital.

In front of the chapel there stood a queer archaic statue representing a tall, sad man who held in one hand a book and rested the other on a staff entwined with serpents (Figs. 3 and 4). This strange figure of stone had stood here from time immemorial and no one knew whom it was meant to represent. Was it of Jesus Christ, Archinald, Mayor of the Palace, or William of Auvergne, Bishop of Paris and master of the hermetic sciences? A better conjecture still, why not Aesculapius, a remnant of ancient pagan Roman rule? The good people of Paris called this strange figure "Master Peter the Jeusner,"[2] and Pasquin[3] in Rome signed his irresponsible, libelous, clandestine pamphlets by this nom de plume. The career of this mysterious personage ended in 1748 when the square in front of Notre Dame was enlarged.

Beneath the buildings of the old Hôtel Dieu were the cellars where were, as expressed with rather bitter irony, "convenient chambers" for the women in labor. The wards were roofed with Gothic vaulting, the small wards resembling chapels and the larger, the naves of cathedrals (Fig. 5).

Beneath the buildings on the water side, and serving as supports, were the famous "eagnards," a kind of crypt in which were installed the morgue and the laundry where the women beat the hospital linen clean in the waters of the Seine, and to which one gained access by a series of grilled openings. It was this series of iron grills facing the river that gave rise to the name "cagnards" or cages (Figs. 6 and 7). Here also was found the "harbour of the Hostel of God" (Fig. 8) by which were received provisions, and whence the friars embarked "to go visit their domain or receive their rents."[4] Here also was the old water gate through which patients were often borne by boat.

The 17th century saw new extensions built on the opposite bank of the small arm of the Seine bordering the Isle de Cité on the south, with a bridge connecting the two sides. An attractive feature of this bridge was a ward called the Hall of the Rosary, built right over the bridge. Still later another covered bridge connected the middle of the rectangle, and the farther end was closed by a third bridge of houses. Thus the Hôtel Dieu enclosed completely a segment of the Seine, and that part of the river embraced within the rectangle was known as the "Port of the Hostel of God"

FIG. 4. PLACE DU PARVIS. ENTRANCE AND CHAPEL OF THE HOTEL DIEU IN THE 16th CENTURY.

Between 1718 and 1737 three successive fires practically destroyed this picturesque group (Fig. 11). Shortly before the revolution the old hospital was rebuilt on both sides of the Seine, but the architectural beauties and the quaint plan of the ancient buildings were gone. And this time, noteworthy only for its ugliness, was the sole feature of a Doric facade (Fig. 12). This must have presented a strange incongruity with the Gothic glory of Notre Dame near by. During the revolution the name was changed to "Grand Hospice of Humanity." This change was in keeping with

FIG. 5. A WARD IN THE HOTEL DIEU IN THE 16th CENTURY.

FIG. 6. "THE CAGES." VIEW OF THE INTERIOR.

all other institutions in Paris, God being shoved out everywhere for some high-sounding title. Thus was the Madeleine known as the "Temple of Glory."

PRESENT BUILDING ERECTED

There had long been agitation to move the Hôtel Dieu from its ancient site astraddle the Seine, and under Napoleon III the present hospital was started on the other side of Notre Dame, in 1861. The building was interrupted by the War of 1870, was completed in 1877 at a cost of 36,400,000 francs, and dedicated by Marshal MacMahon.

"Today the old site is swept clean; for the old monuments of our forefathers there remains nothing. Perhaps there has been saved some vestige? Vain hope! There where civilization passes, one might believe passes the barbarian."[5]

For many centuries the Hôtel Dieu was more an asylum for all the afflicted of humanity than a hospital in our sense of the word. The old, the infirm, beggars, and pilgrims were all welcome at its door. Men, women, and children, French or foreigners, all except lepers.

The first centuries of its existence the number of beds was few, though many might be admitted nevertheless. In 1188 a decree was issued obliging all the canons of Notre Dame on dying to donate a bed to the hospital across the square, the bed not consisting of a foundation as we think of it in our day, but literally, a mattress of straw, a pillow, and sheets. Thus the number of beds was increased from 303 in the 15th century to 1,819 by the end of the 18th. In the present hospital there are only 828.

Up to the Renaissance the Hôtel Dieu was the only hospital in Paris, and for this reason was horribly overcrowded at times of civil war, want, or famine. In the 16th century the Black Death led to the building of La Charité in 1519, and of Hôspital St. Louis in 1607. At the time of the famine in the reign of Louis XIV there were more than 6,000 patients in the Hôtel Dieu. Naturally this led to great resorts, and it is reported that in the 15th and 16th centuries they went so far as to pile six, eight, ten, and even a dozen patients in the same bed. In the 18th century, fourteen are reported to have occupied the same bed. To be sure, up to the Renaissance the beds were very large and would easily accommodate several per-

FIG. 7. "THE CAGES." VIEW OF THE EXTERIOR, TAKEN IN THE 19th CENTURY.

FIG. 9. THE "WATER GATE" OPENING TO "THE CAGES" UNDER THE BRIDGE OF ST. CHARLES. IN THE BACKGROUND THE PONT AU DOUBLE WITH ITS BUILDING.

sons. At a later date, in the 18th century, the Hôtel Dieu counted among its 1,219 beds, 733 large beds accommodating four patients, and 486 small, accommodating only one occupant. To put fourteen in one bed it was perhaps necessary, as Professor Gilbert suggests, to arrange three or four of the large size together and count them as one.

During the 17th century at the time of the Fronde, when the hospital was badly overcrowded, the prioress, one Geneviève Bouquet, had the brilliant idea of utilizing the canopy supported by four stout bed posts, as a sort of upper deck to accommodate the huge influx of patients. Even with this ingenious arrangement it was necessary to put six patients in the "interior" during the famine under Louis XIV.

During epidemics the effect of such arrangements can well be imagined. Thus in 1592, 63,000 patients died of the Black Death at the Hôtel Dieu.

ADMITTANCE AND CARE

The patients were admitted by a portress who was a nun, then examined by a "companion visiting surgeon." Next came obligatory confession to a priest, after which the patient was made to undress and go to bed, no bath being given, and his clothes were sent to the "delouser."

Up to 1221 medical care was given only by the Canons and the nuns. At that date the surgeon Hubert pledged himself to visit the sick "for charity and the healing of his soul." About the same time Vincent de Bois offered his services free and added a large gift in money. After the 14th century patients were cared for by two surgeons appointed by the king and paid by the public treasury. There were also very probably a physician, and finally a mid-wife.

After the 15th century the service was regulated and paid for by the hospital administration of the Hôtel Dieu. The physician at that time, Mathurine Thabouet, only made his visits once or twice a week. The surgeons were much more active and numerous and were graded according to rank from the master surgeon down. Bloodletting was the medical fad of that time and sometimes was practiced on more than four hundred patients a day. This furnished work enough for all the staff. Interesting to note, Ambroise Paré served as "companion surgeon" at the Hôtel Dieu from 1530 to 1536. Perhaps it was here he first used his vaginal speculum to discover the primaries of syphilis, that new scourge of Europe brought back by the armies of Charles VIII from the siege of Naples and thought by some authorities to have been introduced into Charles' army by Spanish recruits, former sailors of Columbus, who had been infected by the Haitian Indians. During the succeeding centuries the number of physicians gradually rose to eleven in 1787, among them being Fagon, the celebrated physician of Louis XIV.

FIG. 10. THE PONT AU DOUBLE AND THE HALL OF THE ROSARY.

The revolution disorganized the service for a time, and the choice of physicians and surgeons has since depended on competitive examination.

The Hôtel Dieu grew up in the shadow of Notre Dame and was for centuries more or less connected with the church. The Sisters of the order of St. Augustine were the nurses and administrators. In the 13th century was born the Faculty of Medicine of the University of Paris. In the 14th century the faculty found its teaching quarters in the Rue de la Boucherie, directly across the street from that part of the old Hôtel Dieu situated on the left bank of the Seine. It

FIG. 11. THE HOTEL DIEU ON FIRE IN 1772.
(From a contemporary print.)

was only a step from the lecture room to the bedside.

CLINICAL INSTRUCTION

Although it is well known how theoretical was the teaching of the faculty before the revolution, still there existed much clinical instruction at the Hôtel Dieu. This bedside teaching is thought to have existed since the foundation of the school in the 13th century. At eight o'clock in the morning the doctor would dismount from his mule before the entrance. "Bachelors, philiatres, and surgeons" awaited him in the chapel or in the Hall of St. Thomas. There stood the "companion-surgeon intern" ready to receive the prescriptions of the master.

The chief, followed by his train of students, went from bed to bed, devoting but a very short time to each patient on account of the great number to be visited. He would question the patients, the interns, the students; he would examine the tongue, the pulse, and the urine; would discourse a bit in Latin, and finally prescribe. Diet, purging, enemas, and blood-letting constituted the healing arts of that day. The students, intent on catching every word of the master, would crowd so closely around that many a tussle between surgical and medical students arose, which led to a ruling that medical students should have priority on the rounds of the visiting physician.

A student would apprentice himself to a master and would accompany him on his visits by mule to his patients in the city.

Clinical teaching, then, in those days was very hit-and-miss. Examination was very superficial and difficult withal, when perhaps six patients occupied the same bed and when there were hundreds to be seen in one morning.

But in 1780 de Bois organized the first real clinical teaching in Paris, at La Charité, and students deserted the Hôtel Dieu to flock to his clinic.

After the revolution when the medical school was reorganized under Fourcroy, bedside teaching and medical and surgical clinics were again established at the Hôtel Dieu. Since that time a host of names famous in the development of modern medicine and renowned as teachers has held the chair of medicine or surgery. In medicine: Corvisart, Sallemant, Recamier, Chomel, Trousseau, Grisolle, Behier, G. Sée, Diculafoy, and now Gilbert; in surgery, Desault, Pelletan, Dupuytren, and at this day, Hartmann.

FIG. 12. PORTICO OF CLAVAREAU. NEW ENTRANCE TO THE HOTEL DIEU.

[2]Old French for "starved Peter."
[3]Pasquin was a tailor who lived in Rome in the 14th century. Outside his shop was an old statue to which he used to affix scurrilous squibs directed chiefly against the papal government and prominent persons. The custom continued during the 15th and 16th centuries and spread to other countries. Whence the name of a particular species of satire called "pasquinade."
[4]Quoted by Professor Gilbert from Coyecque, "L'Hôtel Dieu de Paris au Moyen Age." Paris, 1891.
[5]Gilbert, A. Clinique Medicale de l'Hôtel Dieu de Paris, 19 Novembre, 1910.

THE SEAL OF INDULGENCE OF THE HOTEL DIEU, BEGINNING OF THE 16th CENTURY.

The Educational Treatment of Mental Defectives in Wisconsin

"There are good and there are bad mental defectives but the problem is not in a hopeless or insolvable condition."

BY A. L. BEIER, M.D.
Superintendent, Northern Wisconsin Colony and Training School

The prevalence of feeblemindedness and the problems that are engendered because of its presence in our midst, have been repeatedly demonstrated. Its close relationship to crime and delinquency, illegitimacy and degeneracy, pauperism or dependency, has been well-established and need not be dwelt upon at this time. As our topic indicates, we will confine our remarks to a consideration of the institutional phase of the treatment, care and education or training of mental defectives, as it is followed in our owu institution.

The year 1800 marks the initial attempt to train or educate a feebleminded person. It was at this time that one Dr. Itard of Paris became interested, in an experimental way, in the development and training of an idiot. After painstaking efforts, Dr. Itard found that but little had been accomplished and thereupon abandoned his experiment. It was noted, however, that the boy under persistent training, had improved in many respects. His experiment, moreover, laid the ground-work for the subsequent development of training schools for the feebleminded. In the year of 1837, Dr. Seguin, a former pupil of Dr. Itard, established the first known school for idiots. His work soon attracted attention and in 1842 he was placed in charge of the School at Bicetre, a famous asylum located in the suburbs of Paris. It is interesting to note that schools were established at about the same time in Germany and Switzerland. It was about this time, too, that Dr. Seguin published the first known book on the subject of the treatment of idiocy and the principles laid down in this treatise, it may be said, furnished the basis for all subsequent educational treatment of feeblemindedness. Many of the fundamental principles upon which Dr. Seguin based his work are still applied and followed in our schools for mental defectives.

The first institution on the American continent for the care and training of this class of unfortunates was established by the state of Massachusetts in 1848. Since then every state in the Union, with possibly the exception of four, has established separate institutions or colonies for their mentally defective population. The Wisconsin Home for Feebleminded was established by act of the Legislature of 1895. At that time $100,000 was appropriated with which to purchase a site and to construct the first buildings. Two cottages, a laundry and a power plant were built and ready for occupancy and operation June 11, 1897. The first inmate was admitted into the institution on June 16th of the same year.

LEARNING TO SERVE A MEAL IN A DOMESTIC SCIENCE CLASS.

It may be of interest to note that it took years of patient, persistent effort and propaganda to stimulate and arouse active interest in the care and training of the feebleminded of our state. It was as early as 1885 that our State Medical Society and State Board of Health memorialized our legislature, calling attention to the urgent need for an institution providing custodial care and training for mental defectives. The resolution, although it bore no immediate fruit, served to further direct the attention of the public towards the necessity for establishing facilities for the proper care of this unfortunate class. Later, in 1888, the State Medical Society and the Teachers' Association, also women's organizations throughout the state became more deeply interested in the movement, but it was not until 1895 that their activities and efforts were crowned with success.

Since its establishment, our institution has

A GIRLS' INDUSTRIAL CLASS.

shown steady growth until now it is the largest of our state charitable and penal institutions having a capacity for 1,142 inmates and an acreage of 1,040 acres, of which 600 acres represent tillable land. We now have twelve cottages, one of which represents a hospital building having room for fifty beds, two schoolhouses, one Administration building having within it an inmates' congregate dining room with a seating capacity for 700 inmates. There are also four industrial buildings which include a bake-shop, laundry, carpenter shop, paint and machine shops, a power plant and agricultural building. Since the beginning of our institution in 1895, we have admitted and provided for 4,825 cases. The total number of applications received during this period is 5,829.

TWO MAIN DIVISIONS

In accordance with statutory provision, our institution is divided into departments as follows: A school department for the educable grades or classes and a custodial department which provides for the helpless and lower grade types of feebleminded children. About ten per cent of our inmate population is afflicted with epilepsy.

Before entering upon a description of the educational activities that are in progress in our institution, it may be of interst to note briefly the steps in the development of institutions of this type in their relation to educational activities. The early pioneers, in their experimental endeavors with especially the feebleminded of the idiot grade, based their efforts on known physiological principles and attempted to develop and activate the dormant mental faculties of the feebleminded by stimulating the higher brain centers through the avenues and organs of special sense. In many instances, their efforts were crowned with at least partial success. This type of training, developing as it did, the power of faculties of attention, perception and judgment, has many points of similarity to the system and methods now in use in the kindergarten of our schools for normal children. Just how much influence the work of Seguin has had upon the development of modern educational methods, it is difficult to say. It has been said that Dr. Montessori's educational system rested on the basic principles of instruction formulated by Dr. Seguin.

Following this period, during which all institutions dealing with the feebleminded were chiefly concerned with the educational phases of the treatment of this class of cases, a period of reaction set in and observers generally became convinced that but little could be accomplished

A CLASS IN MANUAL TRAINING AND WOOD CARVING.

toward raising the intelligence level of the feebleminded to any appreciable or advantageous degree. Studies of the hereditary features of feeblemindedness followed and revealed startling facts. Histories of such families as the Jukes, the Kallikaks, Ishmaelites and others, stimulated the sense of realization of the public to the extensiveness of the problem of mental deficiency and emphasized the fact that this condition constitutes a true social and economic burden. Intense research and widespread investigation revealed the fact that this condition is largely the basis of many of our sociological problems and that heredity undoubtedly is a most important causal factor in the production, prevalence, and continuance of feeblemindedness.

CUSTODIAL PERIOD

In the wake of these rather startling discoveries, there followed an epoch, called by Dr. V. V. Anderson, the "custodial period" during which permanent segregation or sterilization of all the feebleminded became the suggested and in many states the established practice in dealing with this unfortunate class. During this period our institutions for the feebleminded became virtually custodial asylums. It is true that educational training still continued to occupy a prominent place, but its purpose was to fit the individual more comfortably into his narrowly circumscribed little niche in institutional environment and to prepare him as far as his limited potentiality would permit to subserve the interests of the institution, and thus to assist in keeping down the general per capita of his maintenance, rather than a constructive, rational effort at rehabilitation through persistent, intensive vocational and industrial instruction designed to fit him for return to his community as a useful, law-abiding, wage-earning individual.

Naturally, it is admittedly futile to attempt training defectives who belong to the lower grades with the expectations or hope of returning these as rehabilitated individuals to their original environment. Our greatest hope lies in adequately and properly training and preparing our highest type for extra-institutional activities under proper direction and supervision.

We are entering upon a new era. Modern thought, based upon the experience of the past, has found that neither method is applicable in all cases. For obvious economical reasons, it were a fallacy to suppose that all our feebleminded cases could be institutionalized. Sterilization, too, as a general method of treatment was found to be inexpedient and was performed only in isolated instances on selected cases.

The advent and wide application of standardized intelligence tests further revealed the extensive prevalence of mental defect. Special classes for subnormal children, who, because of their low educative potentiality, had impeded classroom work and group progress, were established in many of our public schools. Careful instruction in these classes has without doubt eliminated the necessity for institutional training and supervision of many cases. This in brief summarizes

A CLASS IN DOMESTIC SCIENCE.

the work since its inception in the year 1800. No panacea, nor any single, isolated, successful method of treatment has thus far been evolved, but fortunately we have moved onward.

THE WISCONSIN PROGRAM

We are entirely in accord with the program, for the care of the feebleminded in our state, that was formulated by Dr. W. F. Lorenz, former President of our State Board of Control, and presented to the public in June, 1924. As Dr. Lorenz has repeatedly pointed out, Wisconsin already has, as it were, ready-made machinery and exceptional facilities and opportunities for properly dealing with the problem in our state and for developing a practical, workable program for the continuous care, supervision and segregation of a large proportion of our mentally defective subjects. The program contemplates the use of the two state institutions, namely, the Northern Wisconsin Colony and Training School located at Chippewa Falls, Wisconsin, and the Southern Wisconsin Colony and Training School located at Union Grove, Wisconsin, as training centers for the feebleminded. After intensive training those that require permanent segregation or custodial care can be removed to and colonized in our county asylums where they can be made to live useful and happy lives. Those who are not disqualified because of asocial tendencies, after proper training, can be returned to extra institutional surroundings under proper supervision and direction and thus provisions can be made whereby a great percentage of the mentally defective population of our state will be brought under effective control.

Supplementing the program formulated by Dr. Lorenz, who has thus pointed out our facilities for custodial care of certain types that require permanent segregation, we are at present attempting the establishment of a colonization plan for cases who have no radical, adverse personality or asocial traits, similar to that which was initiated by Dr. Charles Bernstein, Superintendent of the Rome State School at Rome, N. Y. The writer recently had opportunity to see a number of Dr. Bernstein's colonies in operation and after visiting a number of the more prominent institutions in the east, returned thoroughly impressed with the thought that a similar system of colony care could be advantageously developed in our own state.

Without attempting a detailed description of the colony system, the extra-institutional colony may be said to represent a step toward fitting the institutionalized individual for return to his community. Dr. Bernstein has colonies for both boys and girls. The boys are usually placed in colonies that devote their attention to agricultural pursuits. The girls colonies are located in cities, where greater opportunities for securing employment for girls exist. Usually girls are given domestic occupations although some are allowed to obtain work in factories. All are required to return to the colony in the evening. After a successful adaptation to colony life many who have thus been accorded an opportunity to demonstrate their fit-

MANY BECOME ADEPT AT THE LOOMS.

ness for life beyond institutional confines are paroled. These colonies become at least eighty per cent self-supporting. The colonization system has long since passed its experimental stage in New York and its continuance alone over a period of nineteen years would tend to indicate its success and practicality. A similar system can readily be developed in Wisconsin.

For the benefit of those who are not familiar with the literature and terms used in relation to the feebleminded, it might be of interest to give the popular definition of the condition. In a broad sense, feeblemindedness is a condition resulting from an arrest of mental development. The definition that is quite generally used and accepted by students and observers who are engaged in the study of the condition was formulated by the well known authority, Dr. H. H. Godderd. He defines feeblemindedness as a "state of mental defect existing from birth or from an early age, and due to incomplete or abnormal development, in consequence of which the person affected is incapable of performing his duties as a member of society in the position of life to which he is born."

The classification of the feebleminded, based on intelligence tests and in vogue since 1909, divides them into three groups or classes, namely, the idiot, who ranges in mental age from 0 to 3 years with an I. Q. (Intelligence Quotient) of from 0 to 20 or 25; the imbecile, who has a mental level ranging from 3 to 7 years, with an I. Q. between 20 or 25 to 50; the moron, whose mentality ranges from 7 to about 12, with an I. Q. ranging from 50 to 70, exceptionally above 75.

A HOPEFUL OUTLOOK

We might well ask, what is the usual educational career of the mental defective? Unless afflicted with hopeless, helpless idiocy, the mental defect enters upon training at the side of his normal brothers, but, from an educational standpoint, is soon found to be inadequate. He loses step in the march of progress, is forced to leave the line, and finally finds his way into the special class or into an institution which provides educational facilities for his kind.

The usual age for entrance into our common schools for normal children is at the sixth year. The mentally deficient children enter special classes or institutions at mental ages ranging from 0 to approximately 12 years, but, with chronological ages up to and beyond 20 years. And thus through commitment many reach our institution.

What then is their subsequent course of treatment? After admission a case is accorded a careful physical examination and this is followed by an inquiry in his mental status. Intelligence tests are applied and his future educational training is outlined. If he belongs to the custodial, unimprovable, untrainable type, he is assigned to our custodial department; should his mental level approximate or be over the age of three years, he is entered in the cottages which provide for the educable and industrial groups. Naturally, an attempt is made to classify or group children in

A TYPICAL GIRLS' CLASS ROOM.

accordance with both their chronological and mental ages. In a general way, all departments of our institution may readily be called training centers. This applies not only to the educational division of our institution but just as emphatically to our custodial and industrial departments. The efforts of all departments are directed toward making the individual as far as it is possible, a favorable and useful unit of the organization or community in which he lives or will live after leaving our care, and because of this, we endeavor to develop him as far as his mental capacity will permit.

The children who represent our lowest type do not receive academic training. Because of their limited potentiality for mental development, it were folly and absurd to attempt their scholastic training along academic lines. But even with these an effort is made to teach them by persistent training, self-help and personal cleanliness. We feel that we have accomplished something—that our efforts have not been in vain—when we have taught a child to feed, dress and undress himself and to attend to his personal needs.

Children of the middle grade can be and are taught self-help—to assist in the care of other more helpless children—household duties and such manual work as entails but little mental effort and forethought. With these, too, there is but little to be gained by even the most elementary instruction in subjects generally embraced in the ordinary school curriculum. Children of this type respond more readily to manual and industrial training. The juveniles of this group will be found in our ungraded rooms receiving the simpler forms of handwork. I believe it is generally conceded that children who have an I. Q. below 50 do not assimilate, absorb, and profit by instruction having a purely academic trend. It seems that the dormant, sluggish faculties of the mind are stimulated and aroused more readily through manual or handwork activities. Ofttimes it is through the hand alone that the mind or brain can be reached.

Our highest type represented by the moron (one whose mental age is from 7 to 12) is educable to a greater extent along academic lines and is trainable to a greater degree in industrial and manual work. In academic instruction the great majority do not pass beyond the fourth grade. True, occasionally we find border-line defectives and epileptics who are able to do sixth and seventh grade work. These receive special attention and training from our teachers.

SEPARATE PROBLEMS

We have eight academic rooms for boys and girls, and five rooms for industrial work, manual training, domestic science and the crafts. In a general way, our academic work is not at all dissimilar from that which is given to normal children in our public schools. There is this distinction, however, we do not attempt to fit the child into the school—rather we try to adapt our educational activities in our classrooms to meet the needs and requirements of the individual. Each defective constitutes a separate problem and in order that the best results may be obtained, each child must receive individual attention.

Although we will at no time discontinue or neglect the education of our children along aca-

demic lines, we are attempting to feature more prominently vocational and industrial training. It is in this department that the defective, if at all capable, is taught the fundamentals of certain vocational pursuits and is fitted as far as his abilities will permit, to assume and follow a practical occupation should he be paroled to extra-institutional surroundings. The care and use of tools and elementary woodwork are taught in our manual training room. A great part of this work may be called pre-vocational. After a period of instruction in this department, many become competent to carry on more advanced work, such as cabinet making, carving, etc. A number of boys have learned the fundamentals of practical carpentry and are now able to carry on general woodwork repairs to our school buildings and its furniture.

INDUSTRIAL TRAINING

Our boys' industrial class receives instruction in weaving baskets and constructing fibre furniture. The various steps in the constructive process of these products is carefully taught and demonstrated to them. Loom-work continues to be an interesting and useful occupation and is a fairly profitable type of employment. In this class a group of children are taught to weave the simple rag and yarn rugs, and later the more difficult types of pattern weaving.

The establishment of our Home Economics Department about two years ago has filled a distinct need inasmuch as it has given our higher grade girls an opportunity to obtain a thoroughly systematized training in a practical occupation which can be profitably followed as a means for securing their livelihood should they leave our institution on parole. It is in this department that they receive intensive training in cooking, waiting on table and lessons in tidiness and cleanliness. Our needlework division includes the plain sewing and embroidery classes. Our girls display great interest in the training they receive in this department. In fact, needlework for mental defectives is known to be a most useful and practical form of training, both from the standpoint of utility and the future happiness of the individual. The results that are being attained are indeed most gratifying.

From plain sewing the girls are readily advanced to dressmaking and ultimately they are taught to do their own cutting and fitting. Many of the girls make their own dresses and show the keenest delight in demonstrating the results of their efforts. Our embroidery department is well developed and produces splendid work. In lace-making, some of our children sometimes show amazing abilities. It is surprising to see children of even the middle grades show remarkable aptitudes for this work. They are taught beadwork, cutting, crocheting, tatting, and finally the more complicated bobbin lace work.

Our adult inmates who have passed beyond the age where further development along scholastic lines can be expected are rendered useful in the various industrial departments of our institution where they may be said to receive additional practical training along industrial lines. Their work when performed under proper direction and supervision becomes in no small measure an advantageous contribution toward their own pleasure, maintenance and self-support. Many of our boys are employed in our agricultural department and the practical instruction received, in many instances, lays the groundwork for later extra-institutional occupation for those who show special aptitudes for this type of work. Our agricultural department includes the farm, garden, dairy and poultry divisions. Many are employed in our power plant, bakery, shoe, carpenter, paint and mattress shops.

Our adult girls have abundant opportunity for occupational work and are utilized in our laundry, kitchen, dining rooms, sewing departments and carry on a great part of other household duties. Many, too, who are temperamentally fitted for this type of service and who are possessed with a natural instinctive feminine love for children give material aid in taking care of many of our feeble and helpless children. There is no doubt but that occupational work, even though it represents actual manual labor, promotes both the physical and mental welfare of the child and makes him a more happy individual.

Our institution has its band and orchestra and also classes in vocal music. Music adds much to the pleasure, entertainment and happiness of our children. No small number show special aptitudes along musical lines.

The value of physical training which has for its objective the improvement of physical health, the

LEARNING TO MAKE LACE IN THE NORTHERN COLONY AND TRAINING SCHOOL.

correction of defects, bad habits of posture and carriage, is not overlooked. Various calisthenic drills and exercises, dancing, basketball and baseball, each has an important bearing on the development of the individual and occupies a prominent place among our activities.

A CHANGING ATTITUDE

In conclusion, I desire to call attention to the fact that our attitude toward the problem of mental deficiency is gradually changing. As our knowledge of, and experience with the condition increases, we find that there are good and there are bad mental defectives. Some, who have no unfavorable personality trends or behavior reactions, after proper training in habits of obedience, conduct and industry, can be paroled in safety into the community under correct supervision. For others, who cannot because of adverse personality or antisocial traits, become favorable assets in extra-institutional surroundings, permanent segregation or custodial care will continue to be necessary.

The problem is not in a hopeless, chaotic, insolvable condition. We are, as it were, beginning to see the dawn of a new light. As one observer, Dr. V. V. Anderson points out, "The dominant note of the State Institution is becoming less and less custodial and more and more medical and educational. There is less and less of the atmosphere of the poorhouse, and more and more that of the hospital and training school."

It was with that thought in mind that we had asked for and secured a change in the name of our institution. The former title, Home for the Feebleminded, suggested to me and to the average person who had no personal contact with our work, that our institution was a high grade custodial asylum, or, a superior type of alms-house or, a home housing human derelicts. Our new name or title is in full accord with the trend of modern thought, and is descriptive in that it indicates the purpose of its establishment, its aim and ultimate goal. In the light of our present knowledge, we realize that our greatest hope for favorable results in training mental defectives lies along vocational and industrial lines. It is for this reason that we are attempting to provide further and increased facilities for properly carrying on our work.

To reiterate: It is generally conceded that mental deficiency is materially responsible for the production of delinquency, crime and dependency. The undirected and untrained high grade mentally defective individual readily becomes a menace to the public welfare through his antisocial behavior and activities. Tided over and through his developmental years, trained in habits of self-control, cleanliness and decency, educated and equipped as far as his limited mental capacity will permit, he can be in many instances, returned to extra-institutional employment and it may be, ultimately can become an asset rather than a liability to the community in which he lives. The maximum number can be returned only after long continued, thorough, persistent systematic education and training.

The development of a colonization plan, a further elaboration of our parole system which is still in a rudimentary state, and the establishment of adequate provisions for after-care or extra-institutional supervision are phases of the work that will receive our attention in the immediate future.

THE JOURNAL BOOK SHELF

Bacteria in Relation to Man. By Jean Broadhurst, Ph.D., Associate Professor of Biology, Teachers College, Columbia University. A Study-Text in General Microbiology. Octavo, 147 illustrations, 304 pages. J. B. Lippincott Company, Philadelphia and London. Price, $3.00.

A Text-Book of General Bacteriology. By Edwin O. Jordan, Ph.D., Professor of Bacteriology in the University of Chicago and in Rush Medical College. Eighth edition, thoroughly revised. Octavo of 752 pages, fully illustrated. W. B. Saunders Company, Philadelphia and London, 1924. Cloth, $5.00, net.

The Health-Care of the Baby. A handbook for mothers and nurses. By Louis Fischer, M.D., Attending physician to the Willard Parker and Riverside Hospitals; Chief attending pediatrist to the Zion Hospital of Brooklyn; Medical director of the Infantorium. Fifteenth edition, completely revised. Funk & Wagnalls Co., New York and London, 1925.

Diseases of Bronchi, Lungs and Pleura. By Frederick T. Lord, M.D. Lea & Febiger, Publishers, Philadelphia and New York. Second Edition, Thoroughly Revised, With the Addition of a Chapter on Pulmonary Tuberculosis. Illustrated with 107 Engravings and 3 Colored Plates.

Proceedings of the International Conference on Health Problems in Tropical America. Held at Kingston, Jamaica, B. W. I., July 22nd to August 1st, 1924, by Invitation of the Medical Department, United Fruit Company. United Fruit Company, Publishers, Boston, Massachusetts. 1924.

A Compend of Genito-Urinary Diseases and Syphilis, Including Their Surgery and Treatment. Fourth Edition, Revised. By Charles S. Hirsch, M.D. P. Blakiston's Son & Co., Publishers, Philadelphia.

Principles of Surgery for Nurses. (Illustrated.) By W. S. Woolf. W. B. Saunders Company, Publishers, Philadelphia and London.

Physical Chemistry in Biology and Medicine. Octavo of 425 pages, illustrated. 1925. By J. F. McClendon, Ph.D., and Grace Medes, Ph.D. W. B. Saunders Company, Publishers, Philadelphia and London.

The Surgical Clinics of North America. Volume V, Number 3, June, 1925. Mayo Clinic Number. W. B. Saunders Company, Publishers, Philadelphia and London.

BOOKS RECEIVED FOR REVIEW

Radiography. A Manual of X-Ray Technique, Interpretation and Therapy. By Charles D. Enfield, M.D., Roentgenologist to St. Anthony's Hospital and Norton Memorial Infirmary, Louisville, Ky. Illustrations, 194. P. Blakiston's Son & Co. Philadelphia.

Surgical Clinics of North America. Volume 5, number 5, October, 1925, St. Louis number. W. B. Saunders Company, Philadelphia and London.

Massage and Therapeutic Exercise. By Mary McMillan, supervisor of Aids in Physiotherapy, Medical Corps, U. S. A., 1919-20. Second edition, reset. Pages, 331, with 17 illustrations. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia and London.

A Text-Book of Psychology for Nurses. By Maude B. Muse, R.N., A.M., Instructor in Nursing Education at Teachers College, Columbia University, New York City. Pages, 351, illustrated. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia and London.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

Medical Clinics of North America. New York Number, September, 1925; Volume IX, Number II. W. B. Saunders Company, Publishers, Philadelphia and London.

This volume contains, as usual, a good selection of papers upon subjects relating to internal medicine. There are two in which rheumatic conditions of the heart are discussed, and two on chronic nephritis. The gastro-intestinal tract and associated organs are discussed in several papers.

Of special interest is a paper on the use of oxygen in acute respiratory disturbances. In his discussion, Barach states: "The evidence * * * indicates that oxygen therapy is of distinct value in acute respiratory disturbances characterized by severe dyspnoea and cyanosis. The respiratory burden is relieved and the harmful effects of oxygen want prevented. In post-operative embolus resulting in marked cyanosis and dyspnoea, such aid may be crucial. In some instances in pneumonia the inhalation of oxygen appears to be responsible for tiding the patient over to a period of crisis. When, however, the clinical condition is largely the result of toxemia, especially when accompanied by a blood-stream infection, oxygen therapy is of little or no benefit." An excellent description of the apparatus and method of treatment is given.—R. B. M.

International Clinics. Volume II. Thirty-fifth Series, 1925. J. B. Lippincott Company, Publishers, Philadelphia and London.

In this volume there are, as usual, many excellent papers upon a pleasing variety of subjects, and one in particular would be of interest to all physicians, especially the younger graduates. In "The Patient or His Disease" James J. Walsh again stresses the point that

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it is much more important to know what sort of a patient has a disease than what sort of disease the patient has. The mental attitude of the patient greatly influences and modifies his symptoms, and I agree with him that "it takes a person of some mind to produce the symptoms of the psychoneuroses." It is true that much has been said upon this subject, but are we on the watch for those patients who would respond better to mental, rather than chemical, treatment?

Another paper well worth reading is one by Charles J. Drueck on "Abscesses About the Rectum and Anus." The subject is discussed from all angles and is written in such a manner that it is easy to read and understand. Treatment is discussed fully, with special emphasis on the after-treatment.—R. B. M.

A Manual of Gynecology. By John C. Hirst, M.D. W. B. Saunders Company, Publishers, Philadelphia and London. Second Edition Revised, $3.50 net.

Like all manuals this volume attempts to cover in too brief a manner too large a field and in common with all works prepared for both students and practitioners of medicine at times assumes too much for the former and is too simplified for the latter. Considerable new material has been added but one is left with the impression that this new material is an unfortunate mixture of actually proven methods and knowledge with what is largely theoretical or empirical and, hence, confusing, while there is room for more up-to-date revision of several chapters practically unchanged from the earlier edition.

As an easy reference or a guide to more extensive reading it has distinct merits, however.—S. I. M.

Physical Diagnosis of Diseases of the Chest. By Joseph H. Pratt, A.M., M.D., and George E. Bushnell, Ph.D., M.D. W. B. Saunders Company, Publishers, Philadelphia and London. 1925.

This new text-book on the physical diagnosis of diseases of the chest will immediately take its place as one of the standard references in English literature. Its component parts, representing the individual contributions of the two co-workers, are so differently treated as to necessitate separate considerations.

The division on respiratory diagnosis by Bushnell is a masterly effort. Its organization is not good from the teaching standpoint; but for reference and a deeper understanding of the fundamentals of physical signs, no superior text is available in our literature. Occasionally irrelevant materials, for example, the reference to diet under a consideration of "Normal Weight," creep in. The legend, "Laennec's stethoscope" under Fig. 12, is inaccurate as reference to the original cuts will demonstrate. Everyone who has given any thought to the classification of râles, will offer some variation from Laennec's original form. To enter into a discussion of the advantages and disadvantages of the innumerable classifications is useless. Certainly Dr. Bushnell has struck a happy medium between over- and under-differentiation and his treatment of this important detail is excellent. His caution regarding the expiratory cough is well-taken. Too frequently, as a result of army training, an obviously active case of pulmonary tuberculosis is subjected to the not inconsiderable respiratory exercise of repeated and forceful coughing. The attention paid to the costal margin phenomena is a notable advance. In the experience of the reviewer subscapular bursitis is a more frequent cause of the pseudo-pleuritic friction than shoulder joint conditions. One would desire that the illustrative x-ray studies be improved upon. In their present form, they add but little to the text.

The section of cardiac affections is a fine addition to the subject. The author has developed his material logically; and from the standpoint of the student, its organization is definitely superior to the section on the lungs. Following Mackenzie, Dr. Pratt sounds a note of caution with regard to the proper evaluation of auscultatory findings in the heart. Without carrying this matter to the extreme of the Scotch master, the reader carries away from Pratt's presentation a well balanced groundwork of cardiac diagnosis, in which auscultation forms only a link. The physiologic aspect of the circulation is stressed. Minor points of difference of opinion are encountered but no gain is suggested from their enumeration.

The volume is well bound. The workmanship in printing is excellent. The proof-reading leaves little to be desired. It is one of the few recent publications which should find a place on the shelves or desk of every man interested in internal medicine.—W. S. M.

Allergy, Asthma, Hayfever, Urticaria and Allied Manifestations of Reaction. By William W. Duke, Ph.B., M.D. The C. V. Mosby Company, Publishers, St. Louis. With seventy-five illustrations. 1925.

This interesting volume on the fascinating and important subject of allergy constitutes an excellent addition to the medical literature. The necessity for a summarization of the information on allergy is appreciated by the author who has collected a most comprehensive bibliography. The lengthy verbatim quotations from recognized authorities are a new departure, disquieting at first but justified by their very nature. The organization of the text leaves much to be desired, but the summaries at the end of each section are helpful. Every student of the subject will welcome this aid.

The inclusion of cuts of the author's examination forms on pages eighteen and nineteen can serve no useful purpose. The botanical survey of the Kansas City district is a valuable guide to workers elsewhere, but one questions the wisdom of devoting so much space to its exhaustive treatment in a text of the present scope. The frequent repetition of quoted cases is not justified; and, too, there are several evidences of inadequate proof reading, viz.: "rule" for role, pg. 54; "phyastignine" for physostigmine, pg. 130; and "formulin" for formalin, pg. 143. This fault is at times apparent in common grammatical errors.

On the whole, the subject is well handled and the author should be credited for holding strictly to proven facts and avoiding philosophical dissertations in a field where, to say the least, romancing is the rule.—W. S. M.

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SOCIETY PROCEEDINGS

BROWN-KEWAUNEE

The annual meeting of the Brown-Kewaunee County Medical Society was held Tuesday, December 1st. Dinner was served at 6:00 p. m. at the Beaumont Hotel, Green Bay. The officers elected for 1926 were as follows: President, Dr. F. J. Gosin; Vice-President, Dr. E. G. Nadeau; Secretary-Treasurer, Dr. F. M. Harris; Delegate, Dr. J. R. Minahan; Alternate, Dr. E. S. Schmidt; Censor to serve three years, Dr. S. F. Rudolph.

An informal discussion of the program for 1926 ensued and resulted in the resolution that the program committee should draft a schedule for the year to be presented at the January meeting. F. M. H.

CHIPPEWA

The members of the Chippewa County Medical Society held election of officers at the Hotel Northern Monday evening, December 14th. The meeting was preceded by a 6:30 banquet. The following were elected for the ensuing year: President, Dr. L. A. Larson, Colfax; Vice-President, Dr. H. M. Trankle, Bloomer; Secretary-Treasurer, Dr. C. A. Cooper, Colfax; Delegate, Dr. W. C. Henske, Chippewa Falls, and Alternate, Dr. H. H. Hurd, Chippewa Falls. The members of the program committee are: Drs. McHugh, McCarty and Hatleberg.

C. A. C.

DANE

Dr. S. R. Boyce, Madison, presented a paper on "Surgical Aspects of Tonsils" at the December meeting of the Dane County Medical Society held at the Madison Club. Dr. R. B. Montgomery, Madison, spoke on "Classification of Foot Prints".

Dr. Louis Fauerbach was elected president of the society; Dr. W. J. Bleckwenn, vice-president; Dr. Robert B. Montgomery, secretary-treasurer; Dr. F. S. Meade, censor; Dr. W. T. Lindsay, delegate, and Drs. C. G. Dwight and E. S. Sullivan, alternates.

DODGE

Dr. J. F. Brown, Waupun, was elected president of the Dodge County Medical Society at the December meeting held at Central State Hospital. Other officers are: Dr. P. A. Panetti, Hustisford, vice-president; Dr. A. A. Hoyer, Beaver Dam, secretary-treasurer and delegate to state meeting; Dr. A. E. Bachhuber, Mayville, alternate, and Dr. F. H. Kennedy, Iron Ridge, censor. Dr. R. C. Blankinship, Madison, spoke on "Gall Bladder Infection" which was followed by the examination of x-ray plates illustrating his talk. There was an attendance of twenty-three at the dinner which preceded the meeting.

A. E. B.

DOUGLAS

The annual meeting of the Douglas County Medical Society was held December 2nd at the Hotel Androy, Superior. The following members were elected for 1926: President, Dr. V. E. Ekblad, Superior; Vice-President, Dr. H. E. Hilliard, Minong; Secretary-Treasurer, Dr. E. E. Carpenter, Superior; Censor, Dr. W. H. Zwickey, Superior; Delegate, Dr. H. J. Orchard, Superior, and Alternate, Dr. T. J. O'Leary, Superior. G. J. H.

GRANT

At the November meeting of the Grant County Medical Society the election of officers resulted as follows: President, Dr. E. C. Howell; Vice-President, Dr. Elgie Kraut; Secretary-Treasurer, Dr. M. B. Glasier; Delegate, Dr. J. C. Betz; Alternate, Dr. E. H. Spiegelberg; Censor, Dr. H. J. McLaughlin. M. B. G.

GREEN

Dr. John L. Fleek, Brodhead, was re-elected president of the Green County Medical Society at the annual meeting and banquet held at the Hotel Ludlow, Monroe. Dr. Edward Blumer, Monticello, was elected vice-president and Dr. J. F. Mauermann, Monroe, secretary-treasurer. Dr. L. A. Moore, Monroe, was chosen delegate and Dr. Mauermann, alternate. Drs. Stovall and Jackson of Madison presented papers and Dr. C. A. Harper of the State Board of Health, spoke on "The Modern Trend of Disease." A symposium on the diagnosis, and surgical treatment of gastric and duodenal ulcer was given by Dr. Harold Marsh of the Jackson Clinic, Madison. J. F. M.

JEFFERSON

The Jefferson County Medical Society held its annual meeting on December 22nd at Lake Mills. Dr. H. R. Foerster, Milwaukee, spoke on "The Recognition and Treatment of Some Common Skin Diseases of the Hands." The following officers were elected: Dr. W. C. Becker, Watertown, President; Dr. G. J. Fiebiger, Waterloo, Vice-President; Dr. A. C. Nickels, Watertown, Secretary-Treasurer; Censors, Drs. J. A. Kiethley, Phillip Leicht and W. S. Waite; Delegate, Dr. H. O. Caswell, Fort Atkinson, and Alternate, Dr. J. F. Dennis, Waterloo. A. C. N.

LINCOLN

The annual meeting of the Lincoln County Medical Society was held on December 1st at Hotel Lincoln, Merrill. The members were addressed by Dr. A. V. De Neveu of Rhinelander, who spoke on prophylaxis, particularly with reference to contagious diseases. Dr. E. K. Morris was elected president for the ensuing year and Dr. W. H. Bayer was re-elected secretary-treasurer.

W. H. B.

MANITOWOC

Dr. E. L. Miloslavich, of Marquette University, Milwaukee, spoke before the members of the Manitowoc County Medical Society at their annual meeting on December 1st. A six o'clock chicken dinner preceded the business session at which the following officers were elected: President, Dr. C. L. R. MacCollum, Manitowoc; Vice-President, Dr. J. E. Meany, Manitowoc; Secretary-Treasurer, Dr. L. J. Moriarty, Two Rivers; Delegate, Dr. E. E. Cary, Reedsville; Alternate, Dr. F. E. Turgasen, Manitowoc, and Censor, Dr. Frank Gregory, Valders.

C. J. S.

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Periodic Examinations of the Presumably Healthy Persons*

BY J. E. REICHERT, M.D.
West Bend

At the 1923 meeting of the American Medical Association in San Francisco, there was presented to the House of Delegates by a committee appointed the previous year, a report on the periodic examination of apparently healthy persons. At the 1924 meeting in Chicago, resolutions were passed urging state and county medical societies and medical schools to prepare their members to undertake this service, declaring that it should be a paid service and that the family physician should continue to be the chief factor in this new field of prevention of sickness. Also, that a manual of suggestions and instructions be prepared for the conduct of these examinations. These facts, together with the more personal request of our own State Medical Society to county presidents and secretaries to bring before the county societies a plan and an appeal to enter into the work, are my reasons for preparing this paper.

The value of periodic examinations for the presumably healthy, as well as others, need not be dwelt upon. Reference need only be made to the benefits derived from the examination of children on entrance to school and during their school lives, in the detection of defects comparatively easily remedied, or the warnings of impending disease from faulty habits or incipient morbidity. The value of semi-annual examinations of commissioned officers of the army and navy, men who must be kept fit at all times, is recognized by the laity and the desire for the same is felt by all who give a thought to well-being and length of days. It is recognized by the individual as a sound personal investment, and by an increasing number of insurance companies to whom a long life means a highly profitable deferred payment. In fact, some companies provide for the periodic examination of their policy holders and find it a highly profitable investment in that the term of life is thereby markedly lengthened. In the east, periodic examinations have become a settled feature. In New York City, where I have made personal observation of this work, their plan is simple and works out satisfactorily to both applicant and physician. A fee of twenty dollars is charged which entitles the holder to two searching examinations during the year for which he enrolls, and gives him the privilege of calling for partial examination at any time that he may suspect the approach of illness.

A. M. A. MANUAL

In an effort to simplify and encourage this work, the American Medical Association has prepared a Manual of Suggestions for conducting periodic examinations and a blank form for recording the findings. The Manual is a small paper-bound pamphlet of fifty-five pages, but it covers the subject in an amazingly clear and complete manner. I can do nothing better than to advise a careful reading of the Manual, as well as an article by Dr. Haven Emerson in the A. M. A. Journal of May 12, 1923, and the recent articles in the A. M. A. Bulletins upon the subject. Copies of all of these may be obtained from the American Medical Association: The blanks at seventy-five cents per hundred and a reprint of Dr. Emerson's article for five cents. The demand for this work is growing among the laity of the more intelligent class, and it is the duty of the family physician to encourage and instruct the patients to report at regular times for a complete stock-taking of their physical resources and defects, and to impress upon them the fact that it is easier to stay well when well, than to get well when sick.

One of the most admirable traits of the medical profession is the unselfish manner in which physicians apply themselves to any move which promises a reduction in mortality or sickness, even though it be at the expense of their own livelihood. This present move, however, which is no less altruistic, differs in one respect from most other great advances in the lengthening of life, in that it will carry with it abundant returns from a satisfied clientele. Right here I wish to say that while I am opposed to fees that cause embarrassment to

*President's Address read before the Washington-Ozaukee County Medical Society, October, 1925.

the poor, I am just as firmly opposed to a fee so small that it pauperizes the applicant. We saw this among our own members in the recent vaccination campaign where the work was done by some of our members for twenty-five cents each. Such practice needs only to be mentioned to be condemned. Like other advances of this kind, it requires a period of awakening, a time when physicians must lend themselves to educating the public to a sense of the value of the work, both as a matter of economy and of comfort to themselves. The ethics of this, of course, cannot be questioned. That brings us to the question: How shall we begin it?

WHERE TO BEGIN

There could be no better initiative perhaps, than that the members of this association submit themselves to an examination with a report, free from details, of the general findings. I venture to say that there is not one among us in whom some defect, great or small, does not reduce his efficiency. If that be true of a body of men in the prime of vigorous life, what might we not expect to find in the average run of frail humanity? Knowing this, are we faithful to our calling and are we giving a full measure of service for the trust our patients have in us? As a society, I do not think the matter calls for action, but I do believe it is the job of each physician as health adviser of the family to explain the value of annual, or better, semi-annual examinations of each member. The dentist advises his patients to come back in three or six months for further observation, and the pediatrician never fails to advise the mother to bring in the baby regularly to keep tab on its progress. If he does not, and finds in a year or two a rickety child or a child with an advanced defect, where should the blame be placed properly if not upon the doctor?

Of all advances due to the marvelous progress of science in any field the past generation or two, nothing can equal the achievements in preventive medicine. Till now, the attacks have been mainly upon parasitic and germ diseases: diphtheria, tuberculosis, yellow fever, malaria, scarlet fever, etc. The new crusade has for its objective the routing of the entire legion of causes of human ailments—the above type of disease as well as those caused by faulty eating, sleeping, working, living, including the weaknesses that we have inherited and are transmitting to the next generation. This also means an analysis of all the conditions under which the applicant lives that may be conducive to disease in later life, including advice as to the best method of correcting faulty conditions and the removal of handicaps to normal growth and function.

PUBLIC DEMAND FOR SERVICE

With the advance of prosperity and general intelligence, the demand for comfort and the desire to enjoy the good things of life have grown apace, and the public is right up in front clamoring for every slight advance in treatment and technique that may add to their ability to enjoy life. So there is no question that this new feature in our work will be eagerly employed once it is presented to our patients. If *we* do not blaze the way, rest assured that one of the cults, or a brand new cult, will formulate a creed of absurd claims and a new system of fakery will appear to further clog the wheels of Truth. It was this same demand for physical comfort by the public that has caused the number of medical men to multiply so rapidly in this country the past generation. I can recall the time when the only doctors from Milwaukee north to the Fond du Lac line were, one at Cedarburg, one at Port Washington, one at West Bend and one at Hartford, with here and there a faker of the bone-setter type; and of these four physicians, one brewed beer as a means to add to his limited income and two of the others were mostly under its influence, showing the limited demand for medical services at that time. As prosperity and intelligence grew, the demand came for more and better service at the hands of physicians, until now, the two little counties of Ozaukee and Washington support most generously thirty-five capable, active physicians. The demand for better things has not yet been satisfied. The public has had an inkling of something that promises a further extension of the lease of life, and they are not going to be satisfied until they get it. I am sure we will not meet the demand with excuses for our unpreparedness.

On first thought one feels there is no difference between examining the supposedly healthy and the confessedly ill, but there is a difference. We start the examination of the well applicant without a clue and must depend, in a measure, upon his history in an effort to find some detail that may lead somewhere to something definite. The attitude of the physician must be more keenly alert and the examination more comprehensive to detect unsus-

pected evidence of abnormal function or structure, and while the "form" will serve as a general guide, it must not be taken to include all that is to be searched for in any case. The examination should be by appointment, of course, and not on our busy day or rush hour, but should come at a time when a quiet hour may be expected. Then comes the important matter of advice as to habits and practices. To make our advice of any value, we must have an intimate knowledge of the patient's history, his habits and his environment. Occasionally the services of a specialist must be called in, as in eye and ear cases, X-ray and metabolism tests, etc., and here is where we may experience some difficulty because of the expense. One object is to make these examinations available to the poor as well as to others, and in the case of the worthy poor, we shall continue to modify our charges so as not to cause hardships to any. To be a universal success, any thing of this kind must be available to all. But these are problems that will supply their own solution when the time comes. The big thing is to *get started*. The only way to do a thing is to *do it*. The field is big and the prospects inviting. Advance as far as our present light shines, and before we reach the limit it will have advanced another step, and so on, until we shall have approached a fair degree of perfection.

Renal Tuberculosis: Clinical and Experimental*

BY E. M. MEDLAR, M.A., M.D.
Associate Professor of Pathology, School of Medicine,
University of Wisconsin

Tuberculosis of the kidney is but one small problem in the field of tuberculosis infection as a whole, but from the standpoint of the individual case it is a real and a practical problem. The diagnosis and rational treatment of renal tuberculosis depends very largely upon the conception of the pathogenesis of the disease.

There are two main issues relative to renal tuberculosis. The first, one of general diagnostic interest, is "Does the presence of tubercle bacilli in the urine mean the presence of tuberculous lesions in the kidney?" The second, one of prime importance to the surgeon, is "Does the establishment of the presence of tuberculous lesions in the kidney warrant its immediate removal, providing the patient is a good surgical risk?"

The first problem was approached through the experimental route, using guinea pigs and rabbits. There are several reasons for the acceptance of this procedure. Inoculations can be made at will in various ways and in various dosages. The urinary output is small enough to allow the use of the centrifugate from twenty-four hour to ninety-six hour specimens for inoculation. This makes for greater precision in the determination of the presence of a few tubercle bacilli. The animals may be killed at any stage of the disease desired. And, finally, the organs are small enough so that serial sections of entire organs can be made without a collossal amount of technical work.

The results of this work were reported in a previous article. The conclusions deduced were as follows: (1) tubercle bacilli are not excreted without tuberculous lesions being present; (2) the absence of tubercle bacilli in the urine does not rule out tuberculous lesions in the kidney; (3) tuberculous infection of the kidney is hemotogenous in origin; (4) bilateral infection is the rule; (5) the number of tubercle bacilli excreted is not necessarily a guide as to the size of the tuberculous lesion; (6) individual tuberculous lesions of the kidney in the guinea pig can heal.

While the results of the experimental work were conclusive, it remained to determine whether the pathogenesis of renal tuberculosis in the human and the experimental animals are similar. We have not been in a position to follow out in all details in the human the work we did in the experimental animals. But we have undertaken certain phases of the problem and we wish to give a partial report on the work which is still in progress.

It was felt that renal phthisis as ordinarily seen by the practising physician is a very late stage in the development of tuberculosis of the kidney. Consequently it was decided to study the early stages before extensive renal destruction had supervened. It was also decided to make an intensive search for evidence of the healing of tuberculous foci in the kidney.

Cases have been chosen in which there was no

*Presented before the 79th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, Sept. 17-19, 1925.

clinical evidence of renal involvement. To date 26 cases have been studied. All but one of these cases have been clinically diagnosed as advanced pulmonary tuberculosis. These diagnoses were all upheld at autopsy. The remaining case was diagnosed as syphilitic meningitis, because of a positive Wassermann on the spinal fluid. At autopsy the case proved to be one of generalized miliary tuberculosis with tuberculous meningitis as the immediate cause of death.

Because of the size of the human kidney, it was deemed impractical to attempt serial sectioning of the entire organ. As a compromise the kidneys were cut open in the fresh and then fixed in 10% formalin for twenty-four hours or longer. They were then cut in strips averaging 2 mm. in thickness and all portions of the kidney appearing abnormal in the gross were fixed and serially sectioned. With this technic it was found possible to pick out small lesions much more readily than in the unfixed tissue. Whenever possible both kidneys were studied in this manner. In the majority of cases, however, it was possible to obtain but one kidney.†

The following tables summarize the results of the work to date: (See next column.)

SUMMARY OF TUBERCULOUS CASES STUDIED

No. of Cases	Age Range	Immediate Cause of Death	Definite Tuberculous Renal Lesions	Scars Only	Neg.
26	18 mos. to 76 yrs.	Pul. Tb...20 Mil. Tb... 2 Tb. men... 2 Abs., brain. 1 Diab. coma 1	18 69% Scars also present in 12—66⅔%	6 23%	2 7.7%

SUMMARY OF TUBERCULOUS LESIONS STUDIED

Bilateral Lesions	No. of Lesions	No. of Sections	Cort. Lesions	Cort. Med. Lesions	Med. Lesions
8 cases 16 cases only one kidney available. 2 cases no lesions in either kidney.	330	76,750	253 76%	40 12%	37 11%

DISCUSSION

From the foregoing tables certain facts appear quite evident in this series of cases. First of all, tuberculous lesions of the kidney are extremely common in cases of long standing pulmonary tuberculosis. That the tubercle bacilli are brought to the kidney through the blood stream seems unquestionable. The preponderance and multiplicity of the cortical tubercles and the fact that in eight out of ten cases in which both kidneys were available the lesions were bilateral, leave little to conjecture relative to the mode of infection. In other words, tuberculous infection of the kidney is simply a part of the picture of a hematogenous distribution of tubercle bacilli.

It is also quite evident that renal tuberculosis frequently exists without there being any clinical manifestation of its presence. In these cases we have been unable to determine the presence of tubercle bacilli in the urine. Brown[1] reported 10% positive urines in 104 cases, with a possibility of one or two of the cases having clinical renal tuberculosis. Hobbs[2] reported 6% of positive urines in 100 cases having no clinical manifestations of renal involvement. If one may judge, from the presence of ulcerative tuberculous lesions in the cases studied in this series, as to the probability of tubercle bacilli being in the urine it would seem certain that not over 20% would have positive urines. This is depending upon the presence of inflammatory exudate and bacilli in the tubules and not upon the demonstration of the bacilli in the excreted urine.

It will be noted in the tables that in only two cases were the kidneys entirely free from lesions of any sort. There is always the probability that lesions too small to be detected by the naked eye might have been discovered had the entire organs been serially sectioned. One of these cases was a woman 28, the other a man 40 years of age. Both cases had advanced pulmonary tuberculosis with cavitation.

Another point of marked clinical importance is the finding of scars without any active tuberculous lesions in 6 cases and of scars along with definite tuberculous lesions in 12 cases. Caulk[3] states

†These cases were available through the courtesy of Dr. Richardson, pathologist to the Cleveland City Hospital.

that a case of healed renal tuberculosis has never been reported. On this basis he justifies the removal of the offending kidney as soon as a positive diagnosis is determined, provided the opposite organ shows no clinical sign of involvement. This apparently is the concensus of opinion of most medical men at the present time.

The majority of scars which have been found in these cases bear no earmark of the pathological processes that have preceded. They are the end result of a reparative process. It is impossible to find any tubercle bacillus or other infectious agent within their boundaries. The interpretation of these scars rests very largely upon the understanding of the pathogenesis of the various infectious and non-infectious renal lesions in which the phenomena of inflammation and repair play a part.

In the study of these scars care has been used to rule out any lesions that might be caused by athero-sclerotic or other vascular lesions. In two of the 18 cases in which scars were present atherosclerotic lesions were also present. The remaining 16 cases showed no pathological evidence of atherosclerosis, or of infarction from embolism or thrombosis, except in connection with a few of the tuberculous lesions.

All of the scars were followed through in serial sections. This is important because of the fact that many of the low grade tuberculous lesions have an area of scar tissue around their periphery. When tangential sections of such tuberculous lesions are cut through the area of scar tissue it is impossible to tell such lesions from the scars in which there is no evidence of tuberculosis present when followed through in serial sections.

There seems little doubt but that these scars are healed infectious lesions of some sort because of their multiplicity and distribution. The majority of the scars are located in the cortex of the kidney, but cortico-medullary and medullary scars are also found. The proportion of scars in the cortex and medulla of the kidney correspond closely to the proportion of the definite tuberculous lesions in the same situation.

Some of the scars have a slight to moderate degree of lymphocytic infiltration. Others are simply areas of more or less compact old fibrous tissue. In two cases scars with small irregular bits of what appeared to be old caseous material were found. In another case a walled off caseous area was found. Demonstration of tubercle bacilli in this lesion was impossible, even after very careful and prolonged search in various levels of the lesion and there was no evidence of an active inflammatory reaction in any portion of the lesion. It seems probable that the difference in appearance of these scars depends upon the age of the reparative process and whether or not caseation had occurred in the original tuberculous lesion.

Another point in favor of these scars being healed tuberculous lesions is the presence in the same kidney of scars and definite tuberculous lesions. It seems logical to expect in cases of long standing pulmonary tuberculosis to have tubercle bacillus bacteremia at intervals. This would allow of lesions of different ages in the kidneys. If tuberculous lesions in the kidney can heal, it would be entirely possible to find healed and active lesions in the same organ.

The tuberculous lesions studied have shown considerable variation in the cytological reaction. This reaction apparently depends largely, if not wholly, upon the number of tubercle bacilli in the individual lesion. Where tubercle bacilli are numerous the lesion resembles an abscess more than a tubercle, as polymorphonuclear leucocytes predominate. In fact, one can predict with a fair degree of accuracy the ease with which tubercle bacilli may be found by the cellular reaction. This acute type of lesion is the one in which caseation and ulceration are likely to occur at a later date.

These lesions are quite often no larger than miliary tubercles. They have been observed in glomeruli and in the tissue between the tubules, both in the cortical and medullary zone. Quite often they show erosion into the adjoining tubules with the inflammatory exudate and tubercle bacilli lying within the lumen of the tubules. From this it will be seen that tubercle bacilli may oftentimes be found in the urine in cases where only miliary tubercles are present in the kidney. This point is of especial importance in the consideration of the diagnosis of renal phthisis.

In case the tubercle bacilli are few in number and conditions are unfavorable for their continuous multiplication, the typical tubercle is formed. This type of lesion often shows no evidence of caseation. On the other hand, it commonly shows definite evidence of a reparative process. Eventually this type of lesion is composed of fibrous tissue

infiltrated with lymphocytes and an occasional giant cell to identify it as a tuberculous lesion.

At this stage it is extremely difficult and often impossible to demonstrate tubercle bacilli. The scars described above would be but a later stage in this reparative process when even the giant cells will have disappeared and there would be no clue as to the exact etiological agent.

This work is at present incomplete, as sufficient controls in diseases other than tuberculosis have not been studied. Certain facts, however, are evident. 1. Tuberculosis of the kidney is very common in cases of advanced pulmonary tuberculosis. 2. The infection is blood borne and bilateral involvement is undoubtedly the rule. 3. Many cases of renal tuberculosis do not give clinical symptoms pointing to such involvement. 4. Sufficient evidence is at hand to warrant the assertion that tuberculous lesions of the kidney do heal. 5. The mode of infection and the distribution of the lesions in the guinea pig kidney and the human are similar. As the essential organic structure of the kidney in the human and guinea pig is the same, it seems logical to assume that the presence of tubercle bacilli in the urine would be proof positive of the presence of ulcerative tuberculous lesions in the human kidney, just as it proved to be in the guinea pig kidney.

It is understood that, in this article, we are not dealing with renal phthisis. The healing of the kidney after extensive destruction and cavitation is extremely doubtful. But it should be borne in mind that the demonstration of tubercle bacilli in the urine does not establish the diagnosis of renal phthisis.

From the foregoing discussion it would seem that, before nephrectomy is advised, the following facts should be established: 1. Evidence of considerable destruction and cavitation of the kidney; 2, the presence of tubercle bacilli in the urine on repeated examination at considerable intervals of time; 3, the absence of tubercle bacilli in the urine from the opposite kidney on repeated examinations; and 4, the failure of medical treatment on the same basis as is now used in cases of pulmonary tuberculosis, viz., proper sanitarium treatment.

REFERENCES

1. Brown, L.: Jour. A. M. A., March 13, 1915. LXIV, 886.
2. Hobbs, F. B.: Tubercle, 1923, V, 57 & 105.
3. Caulk: Jour. Urol., 1921, VI, 97.

DISCUSSION

PRESIDENT CUNNINGHAM: The discussion will be opened by Dr. W. E. Bannen, of La Crosse.

DR. W. E. BANNEN: It seems a little bit hard to try to discuss a paper that is as complete as the one that we have just listened to, especially for the man who is doing clinical work and sees a few cases of renal tuberculosis. We cannot boast of an excessive or a vast amount of clinical material from which to draw conclusions and laboratory methods as complete as have been used in this work that has been painstakingly done, scientific and rational attack of the problems to give a conclusion, a proof to a conclusion that we have long been trying to find. I think all of you, most of you at least, have been convinced that most of these infections, all tuberculosis infections of the kidney and many of the other kidney infections were hemotogenous in origin. We have our theories of extension by contiguity, extension through the lymphatics, ascending infections, the phenomenon of the reflux or regurgitation in the kidney which we cannot deny, but which is undoubtedly due to trauma and other pathogenetic causes. This paper has been so complete that I for one am willing to accept the verdict on the evidence presented. It has been very encouraging to think of the amount of work, the vast number of examinations that have been made in the collections of this pathological sections study.

I think every one who has removed a kidney in the hope of saving a life from unilateral hematuria and has found no pathology to justify or to explain the hematuria, will feel if he had been able to get a serial section of the human kidney as the doctor has obtained from the smaller kidneys in his experimental animals, the pathology would have been found and we would not have had to hide behind that vague diagnosis that we use so many other times, arteriosclerosis. I think I saw a report of two kidneys removed for hematuria within the last few weeks with a diagnosis of arterioscleroic kidney.

At this same time we have to consider two or three other points of renal tuberculosis that we do not explain. Here we have been working with experimental matter, a single strain, or two single strains of bacteria in animals that are fairly susceptible and an inoculation that must necessarily have given us a miliary or a generalized tuberculosis. I am thinking in comparison with this of the man or patient we see with a seminal vesicle or urogenital tuberculosis and later the extension or the manifestation is of renal tuberculosis. In this case we have been taught to believe there was possibly an ascending tuberculosis. Thinking again of renal tuberculosis with mesenteric tuberculosis, the case in which the X-ray shows calcified mesenteric glands, or the case of the child with the renal tuberculosis and the mesenteric tuberculosis and how it can be attained, we have attained our renal type through a hemotogenous origin.

A short time ago there was an article that came out saying mesentery renal and mesentery tuberculosis were caused by the avian or chicken tuberculosis, that there was failure to obtain results in the guinea pigs inoculated because the guinea pig was non-susceptible to avian tuberculosis, and that these could be grown upon culture material.

Last night Dr. McMahon spoke of the problem of education along cancer research lines and spoke of the number of cases that were overlooked or treated expectantly without indication of the flow that was not normal, either in regard to time, quantity or quality. Since this campaign of education on tuberculosis, the incipient cases of tuberculosis get an early diagnosis and from the urological standpoint I ask this: Why can we not have an early diagnosis in renal tuberculosis? I would like to make this one point, perhaps two, for you to take home. I believe that the medical practitioner who sees a case of hematuria and treats it expectantly or the man who has a cystitis, that is intractable, with an acid urine, and treats it expectantly and his case is going along with renal tuberculosis, is neglecting that patient. The fact that you have

a red blood cell in the urine that has no pus there, in fact its very presence means that you must get busy and discover its source and its significance. If you can't find it after a reasonable amount of search, send the patient on, or try to locate the cause of that hematuria. It may be a tumor, a neoplasm, it may be a calculus. Don't depend upon a single X-ray. The X-ray is very valuable in exceedingly expert hands in diagnosis of renal tuberculosis. The cystoscope is necessary to rule out tubercle bacilli when found in the urine, coming from the lower portions of the tract. The cystoscopic examination of these cases that have renal tuberculosis requires an anesthesia; don't use cocaine, it is dangerous and it does no good, you get no anesthesia. All cases of renal tuberculosis are not an entity but a systemic disease, therefore, don't use ether, because you are liable to light up foci somewhere else in the body, especially pulmonary. Don't attempt to remove a tuberculous kidney until you have had a complete physical examination, including a stereo of the lungs, a complete physical examination. If you don't do that, you are just as responsible for negligence as though you had operated on a carcinoma of the breast without a stereo of the lungs to see if you had internal or pulmonary metastasis.

Those are just some points it seems to me are necessary to give. I had collected some data but, unfortunately, lost it. It was on the treatment and the number of cases that recovered and those that did not recover under expectant treatment and nephrotomy. Some cases of cystitis are so intractable, so intolerable that they make surgery imperative. I believe, as Dr. Mediar has said, that sanitarium treatment makes them a better surgical risk and is worth while before resorting to nephrotomy. (Applause.)

Significance of Late Results of Surgical Treatment*

BY WILLIAM EDWARD FAIRFIELD, M.D.
Green Bay

The observing practitioner, and more especially the surgeon whose reputation brings to him a large number of individuals who failed to receive relief at the hands of other operators, has frequent opportunity to investigate the results of surgical interventions which have admittedly not only failed to bring relief, but can even be said to have developed a problem decidedly more complicated than was the original one. This is particularly true of operations performed for the relief of relatively unimportant abdominal pathologies, in which the original symptoms were not of an alarming character; and also of cases wherein one must reluctantly conclude that a preoperative neurosis has been aggravated by an addition to it of a postoperative pathology.

It is not pleasant to admit that these things occur in the practice of ourselves as well as others, but if we truly desire to be just in our criticisms; if our object it is to protect confiding patients from surgical assault; if our acts are to be guided by high motives, to the end that the patient's well-being shall be of primal importance, then it will be well to go over, each our own field of surgical endeavor in an effort to bring to our attention those cases in which the results have not been definitely good, and to lay bare the probable cause therefor.

In this short paper I shall make no attempt to introduce any new or startling theories or procedures, being content to follow the sensible and practical lines laid down by your Program Committee, which has wisely directed us away from the field of speculation into the broad and safe road laid out by common sense.

We are so prone to dwell upon our accomplishments, and so inclined toward forgetfulness of our failures, that an occasional consideration of all the facts; of all our surgical results, good, indifferent and disastrous—might be of not a little service in helping us to avoid errors which lead to needless suffering; imposed not for a few anxious hospital residence days only, but fastened to a human being to be endured throughout his earthly existence.

May we not then advantageously consider the inherent rights of the patient in the premises. Will you not agree with me when I say that the patient is to be *benefited* by the operation? If he cannot be cured completely and finally, he is within his rights when he at least expects that his condition will be such as to make his life more bearable. Can we not agree that operations should a priori be founded upon *assurance,* rather than upon *hope,* and that in any event they shall be so performed that no avoidable complication shall arise to render the end result more unbearable than was the original affliction.

The candid worker in this field will admit that mistaken diagnoses are too frequently the result of carelessness, or of a lazy and unsystematic investigation. Too often the surgeon puts more thought upon a successful mashie shot to the green than he does to the differentiation of a kidney or gall bladder lesion from a possible appendicitis. We have heard possibly too much praise of the "bold and fearless surgeon," and too little of the cautious and conscientious one. Boldness and

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fearlessness are admirable attributes when coupled with patient and painstaking preoperative investigation. Without it they approach the boldness and fearlessness of the burglar. Accurate diagnosis must remain the most important step in an attempt to avoid post-operative disappointments.

It would seem that we have not made full use of the many advantages we possess over the practitioner of earlier days. The safety of surgical invasion of the abdomen has evolved a dangerous mental attitude in that it has led to exploration as a primary step, and the fact that the patient recovers from the operation itself has led to the belief that a cure has been effected, when too often the patient has only recovered from an ill-conceived operation.

Our measurement of results must not be founded upon recovery from operation, but only upon recovery from the disease which led to operation, and in no case are we to assume that a cure has been established, if such a conclusion is based only upon the ability of the patient to return to his home. Most patients feel better when they leave the hospital. They have at least an established faith in their ultimate recovery, and under the influence of post-operative optimism will unintentionally mislead and deceive themselves. Time, however, will alter this attitude, and lead to a fairly accurate conclusion touching the benefits derived from the intervention.

Among the post-operative pathologies, which we may rightfully assume can be reduced, I would name,

(1) Post-operative herniae.

(2) Post-operative adhesions.

Herniae most frequently result from: (1) Infection of the wound; (2) faulty and careless apposition of fascial layers; (3) the use of coarse catgut with cumbersome knots; (4) improper support of the wall with stay sutures; (5) distension of the abdomen and strain upon the sutured tissues; (6) vomiting with its strain upon abdominal muscles, and, (7) improper incision lines with consequent injury to muscles and their nerve supply.

AVOIDABLE CAUSES

Now surely most of these causes are avoidable. Infection of the wound should not occur. Distension of the abdomen can be largely avoided by proper preoperative care. Clearing out the intestinal tract at least sixty hours previous to operation, and feeding the patient thereafter largely on liquid non-fermentable food will practically eliminate abdominal distension and gas pains.

The practice of operating without systematic and thorough preparation should be limited to those emergency cases in which there is great danger from delay, and in elective cases after the administration of a cathartic one should wait until there is complete subsidence of the peristalsis occasioned by it.

Fascial layers can be accurately brought together with fine catgut, avoiding all interposition of fat or muscle, so that like may unite to like. The use of fine catgut results in less liquefaction during the process of absorption and fine catgut when tied gives a small knot, which also minimizes irritation. Figure of eight silk worm gut, or other stay sutures well applied, take away the strain on the lines of approximating sutures when post-operative vomiting occurs. We should not assume that we will not have vomiting. Each case should be closed against all potential complications so far as it is possible to foresee their appearance.

IMPROPER INCISION LINES

I desire to condemn the recent teachings, especially of surgeons whose technique is based largely upon their war experiences and who assert that the abdomen may be opened in any plane and by any incision that will give ready access to the parts to be attacked.

Injuries by gun shot often made the damage from such practice negligible. A laceration of wide extent already present in a transverse plane might by further extension with the knife become the least damaging and the most practical, but in civil surgery we are not confronted with such problems, and the anatomic relations, preoperative, are not as a rule disturbed.

It thus becomes our duty to preserve these relations so far as is possible. Superimposed layers of muscles cannot be divided and reunited satisfactorily when the division is transverse to the course of their fibers and while the practice of those who bind these superimposed layers together by stitching previous to division, is admirably adapted to those cases in which such division is necessary, it does not follow that unnecessary transverse muscle section is desirable.

Division of nerves both sensory and motor leave the abdominal wall in a permanently subnormal condition. All cellular structures are dependent for support and regeneration, not only upon a

normal supply of normal blood, but also upon normal nerve impulses. Interference by nerve section leads to subnormality and atrophic changes which are quite as undesirable as the complete exhaustion that follows excessive irritation. Repair being dependent upon normal cell reproduction, it follows that the surgeon must not unnecessarily disturb the normal reproductive conditions.

The program of this meeting is a virile and timely protest against the tendency to forget the kindly and efficient efforts of nature to substitute and to repair damage of every kind. The office of the surgeon is to make nature's burden lighter, and to surround her reproductive efforts with the atmosphere most conducive to her greatest efficiency.

Referring to local conditions, relaxation and trophic changes may be quite as annoying as a true hernia, and loss of skin sensation serves to remind the patient of the fact that he is not quite normal. The normal individual may tolerate this condition without complaint while the neurotic will upon its basis build an edifice of decrepitude.

POST-OPERATIVE ADHESIONS

I am quite aware of the unfairness entailed in criticism of the operator by any one who was not present at the operation. The difficulties present in cases of chronic as well as of acute infections may inevitably require more than the ordinary traumatism, handling and exposure, and lead to post-operative adhesions which are admittedly inseparable from cases of that nature. But it is not only in such cases that adhesions occur and we must seriously inquire into their causes, and make an honest attempt to lessen the discomfort to say nothing of the suffering of those whose abdominal conditions previous to operation, present no pathology that will excuse extensive adhesive fixations.

Much damage to the patient's comfort and well-being may be done by the fixation of organs which normally are mobile. Most organs that are mobile are functionally so, and fixation interferes with function. Fixation of the uterus and other abdominal organs should be done only for conditions which cannot be met by other means. The shortening of ligaments and fixation of uteri for all manner of symptoms from backache to hysteria should be condemned on general principles, and in connection with the etiology of "pain from pressure," the which is most often the reason given for operation, we should remember that the pregnant woman with much greater pressure may be fairly comfortable and free from pain. Infections that end in fixations are the cause of most of the symptoms which bring women to us.

In this connection, I would wish to recall some of the practices of not a few eminent and skillful surgeons which to my mind account for the formation of unnecessary intra-abdominal adhesions.

In opening the abdomen and upon exposure of the peritoneum, the surgeon is often seen to grasp that membrane with a heavy forcep on one side, while his assistant makes a similar grasp upon the opposite side. These two peritoneal crushing operations are quite likely to be an inch apart, and when closure is made this traumatized area invites adhesion.

Again, when the peritoneum is opened, many assistants grasp the cut edges with forceps, and not the edges only, but often crushing injury is done for a distance of an inch from the margin of the wound. Adhesions to these crushed surfaces will assuredly occur. I use this single practice simply as an illustration of the minor surgical assaults which may receive no notice, yet which may account for some of our post-operative discomforts.

Over-industry in packing off surgical areas, and the use of unsuitable packing material may so traumatize the peritoneal surface as to invite adhesive processes. While we must all recognize the value of satisfactory exposure and well-timed protection from possible contamination, is it not possible that we are using too much the technique of the taxidermist in the simpler cases, wherein teaching technique can be profitably omitted?

Again, in the so-called covering of raw surfaces, is it not possible to improve our technique? May not a row of exposed sutures with its knots and crushed areas produced by improper and unnecessary handling with forceps, may these not be quite as inviting to adhesive processes as is a raw surface?

Many such coverings can be made with a very fine catgut stitch, applied in purse string fashion, but with the catgut ring entirely submerged beneath the peritoneal coat, and the desired result will be quite satisfactory alike to the operator and the patient.

Sponging the peritoneum with a scrubbing motion is sure to do damage to its delicate surface which will lead to nature's effort to protect itself,

namely adhesions and so sponging should be done by gentle dabbing and never by frictional motion.

Packings should be moist and salinized, carefully placed, disturbed as little as possible, and finally removed gently and carefully. Accidentally punctured veins leading to blood extravasations, should have a ligature so applied as to prevent clot migration.

Exposure of the abdominal contents to the air until hyperaemia and venous stasis occur is usually unnecessary and certainly never desirable. It can be avoided only by insistence upon operating room preparedness in every case. Every article which may be required in a major surgical exposure must always be at hand, so that unnecessary delays may be avoided and quick protection afforded when unexpected developments make them necessary.

Too much surgery at one sitting is not desirable and the careful operator avoids it. Prolongation of operative time and exposure added to the shock of additional operations may overstep the safety line; and so it is better to err upon the safe side by refusing to add more than the patient can safely bear.

Operations upon the throat, and nose, such as tonsillectomies, and septum resections are best unconnected with laparotomies, if for no other reason than to make it more easy to properly interpret post-operative symptoms.

No patient upon whom an elective operation is to be performed should be denied the benefits of a thorough examination, and such preparation as is necessary to establish a *resistenciae majoris.*

As all repair is dependent upon the circulatory blood and its circulating mechanism, these must be carefully investigated, and every possible improvement must be sought. As purity of the blood stream is dependent upon its chemical balance, we must see that it is not contaminated by the products of weakly functionating eliminative organs. We have too long placed a strong reliance upon urinary chemistry, and little if any upon blood chemistry.

Transfusions in anaemias; attention to myocardial conditions; establishment of normal chemical balances, and their maintenance by proper foods; light, heat, air, and exercises, these with pleasant and hopeful mental suggestions will bring to the individual cell the power to defend itself, and thus to defend the individual against the unavoidable.

In connection with the operation itself, gaseous distentions and intestinal pains are best prevented by proper diet and the avoidance of provocative peristalsis induced by the administration of cathartics and enemas too near the operative hour.

Reasonably long preoperative residence in hospital should be demanded when practical, not alone for physical preparation but for mental preparation as well. The patient with faith and confidence, and with a mind at ease is a better surgical risk than is the same patient perturbed and fearful. Insistence upon recumbency until healing is firm is quite essential to success, and when the patient leaves the hospital he should have a thorough understanding of the care and precautions necessary to rehabilitation, and, finally we must be ready to count as successes only those cases which have become at least relieved by operation, and admit failure when the patient has passed through the operative ordeal only to find himself as ill or more ill than before.

DISCUSSION

PRESIDENT CUNNINGHAM: The discussion of this paper will be opened by Dr. F. G. Connell.

DR. F. G. CONNELL (Oshkosh): Mr. President. Ladies and Gentlemen: Dr. Fairfield very kindly sent me his paper a week or two ago. After reading it, I found that he had hit the nail so squarely on the head that there was very little for me to do but to emphasize some of the points that he has so strongly brought out.

When surgical treatment was a last resort, and imperative operations were the rule, the results were described in terms of mortality, but now, since surgical measures are often a "cure all" with an expected magic sequence, and operations are more frequently elective than obligatory, the result is reasonably expected to be a recovery as far as life is concerned and therefore must be expressd in terms of morbidity. In order that one may accurately estimate this morbidity, or its absence, a familiarity with the final outcome is necessary. The remote result is the court of last appeal, regarding the value of treatment, but sad to relate, it is rarely called upon to function, as such, chiefly because of a lack of follow-up records.

Differing, fundamentally, as we do from "Business," we may nevertheless profit by a leaf from the book of commercialism, namely inventories. Successful business enterprises know just where they are at all times, and it is expected that the one that does not have accurate records and a complete inventory, at least once a year, is headed for bankruptcy. It is just as necessary that the physician, dealing in the prevention and cure of disease and the relief of symptoms, take stock, at intervals, and learn just where he and his methods stand, otherwise, he may be likened to a mariner without a compass.

Nothing is so conducive to complacency as to refrain from the checking up of one's results. Take, for example, the removal of appendices or the shortening of round ligaments; if an operating surgeon relies upon his impression as to the result and does not carefully investigate the final outcome as compared with the preoperative symptoms, he will generally be satisfied, but definite knowledge as to the final result is necessary; if satisfactory, well and good; if unsatisfactory the reason must be searched for, either in an incorrect diagnosis, an ineffectual treatment, improper after treatment, or other factors.

The immediate result in chronic cases, of course, is of little import, but this has not been emphasized and the very forceful remarks of Dr. Fairfield will help to bring

this fact before the profession and encourage the keeping of follow-up records, which will help in securing a sound footing for our treatments.

The essayist speaks at length of "post-operative pathologies," herniae, adhesions and others, which are a sequence of operations. These are very important, and I can heartily concur with his statements, but, to me, it seems that the largest factor in producing unsatisfactory results, is mistaken diagnosis. Many patients come for "careful and complete study" after unsuccessful operations; if they would learn to demand more thorough study and consultation before instead of after operations our results, in elective cases, would markedly improve.

Dr. Fairfield's remarks concerning technique are sound, and will bear repetition.

His point relative to the avoidance of pre-operative catharsis needs emphasis; and as a corollary, I would recommend post-operative gastric lavage; these two points will help to diminish many post-operative complications. Preserving the structures of the abdominal wall at the time of the incision is fundamental, as is likewise the necessity of dexterity, gentleness and non-traumatizing manipulation during the operation.

More care and thoroughness before, during and after the operation will markedly diminish the rather disconcerting number of unsatisfactory results after abdominal surgery.

Compensation for Loss of Vision Due to Industrial Diseases or Injuries*

BY NELSON M. BLACK, M.D.

Milwaukee

This paper is a resumé of the Report of the Committee of the Ophthalmic Section, A. M. A., on compensation for eye injuries upon which the Committee has been at work for the past 6 years. The final report was made at this year's meeting and was accepted and adopted by the section and also by the House of Delegates.

The aim of the Committee was to establish a method of determining the loss of visual efficiency of a person who has suffered any degree of impairment of vision as the result of occupational disease or injury. Such loss is to be the basis on which the amount of compensation shall be determined.

Compensation for loss of vision is to be that proportional part of the compensation provided by law for total permanent disability which expresses the percentage loss of visual efficiency of the individual in pursuing a gainful occupation. Total permanent disability of both eyes being identical with total permanent disability of the individual.

At present the compensation laws of most states contain provisions that base awards on disability of one eye only, and some statutes provide separate schedules for one eye and for both eyes. In the interest of uniformity definiteness and justice, it is urged that compensation statutes be so changed that awards for ocular disability shall be based on the percentage of permanent disability only.

The visual efficiency of the individual is dependent upon 3 interdependent and co-ordinate elements, i. e., acuteness of vision, field of vision and muscle function. These 3 factors do not possess an equal degree of importance; however, no act of vision is *perfect* without the coordinate action of all.

In order to determine the various degrees of visual efficiency, the maximum and minimum limits of each coordinate function must be established, i. e., the 100% and the 0% points.

MAXIMUM LIMITS

For acuteness of vision, the ability to recognize letters or characters which subtend an angle of 5 minutes is accepted as standard or 100% for distance and near.

A visual field whose area is approximately 80% of the physiologic average field is accepted as 100% industrial field efficiency.

One hundred per cent muscle function exists when there is absence of diplopia in all parts of the field of binocular fixation.

MINIMUM LIMITS

The minimum limit or 0% of the coordinate function of vision is established at that degree of deficiency which reduces vision to a state of uselessness.

Central Visual Acuity: The minimum limit of this function is established as the loss of light perception, light perception being qualitative vision. The practical minimum limit of quantitative visual acuity is established as the ability to distinguish form.

Experience, experiment and authoritative opinion show vision of 20/200 as 80% loss of visual efficiency, 20/380 as 96% loss, and 20/800 as 99.9% loss.

Field Vision: The minimum limit for this function is established as a concentric central contraction of the visual field to 5 degrees. This degree of contraction of the visual field reduces the visual efficiency to zero.

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Muscle Function: The minimum limit for this function is established by the presence of diplopia in all parts of the motor field. This condition constitutes zero visual efficiency.

MEASUREMENTS OF COORDINATE FACTORS

(a) Distant vision shall be measured at 21, and near vision at 14 inches. The quantity that determines the visual acuity efficiency of one eye shall be the result of the weighted values assigned for distance and for near. A onefold value is given to the former and a twofold value to the latter. The best central visual acuity obtainable with correcting glasses shall be used in determining the degree of visual efficiency.

(b) Field Vision: The extent of the field of vision shall be determined by the use of the usual perimetric test methods.

The amount of radial contraction in the eight principal meridians shall be determined. The sum of these eight, divided by 420 (the sum of the eight principal radii of the industrial visual field) will give the visual field efficiency of one eye in per cent.

Muscle Function: Muscle function shall be measured in all parts of the motor field, recognized methods being used for testing.

When diplopia involves the entire motor field, causing an irremediable diplopia, the loss in coordinate visual efficiency is equal to the loss of use of one eye; and when the diplopia is partial, the loss in visual efficiency shall be proportional and based on the efficiency factor value of one eye.

INDUSTRIAL VISUAL EFFICIENCY OF ONE EYE

The industrial visual efficiency of one eye is determined by obtaining the product of the computed coordinate efficiency values of central visual acuity, of field vision, and of muscle function. Thus, if central visual acuity efficiency is 40 per cent, visual field efficiency is 81 per cent and the muscle function efficiency is 100 per cent, the resultant visual efficiency of the eye will be $0.40 \times 0.81 \times 1.00 =$ 32.4 per cent. Should diplopia be present in part of the motor field so that the motor efficiency is reduced 50 per cent, the visual efficiency would be $0.40 \times 0.81 \times 0.50 = 16.2$ per cent.

INDUSTRIAL VISUAL EFFICIENCY OF THE INDIVIDUAL

It is a fact well established by common experience that the visual efficiency of the individual is by no means reduced to one-half (50 per cent) by the complete loss of one eye, vision in the fellow eye remaining normal. Hence the necessity for a weighted average. The researches of the committee show that a weighing factor of 3 applied to the more efficient eye gives an efficiency rating of the individual in substantial agreement with the consensus of technical judgment, such judgment being based on actual reproduction, comparison and relative evaluation of various specific conditions of visual efficiency.

The industrial efficiency of the individual is computed as follows: To the percentage figure which has been determined as the industrial visual efficiency of the *less* efficient of the two eyes, three times the percentage figure that has been determined similarly for the *more* efficient eye is added, and the result is divided by 4. The quotient will be the percentage figure that expresses the *industrial visual efficiency of the individual.* Thus, if the individual efficiency rating of the injured eye is 40 per cent and that of the fellow eye is 100 per cent, the visual efficiency of the individual will be found by the following formula:

$$\frac{(40 \times 1) + (100 \times 3)}{4} = \frac{340}{4} = 85 \text{ per cent}$$

individual industrial efficiency, and compensation should be 15 per cent of the amount awarded for total permanent disability.

TYPES OF OCULAR INJURY NOT INCLUDED IN THE DISTURBANCE OF THE COORDINATE FACTORS

Certain types of ocular disturbance are not included in the foregoing computations and these may result in disabilities, the value of which cannot be computed by any scale as yet scientifically possible of deduction. Such are disturbances of accommodation, of color vision, of adaptation to light and dark, metamorphopsia, entropion, ectropion, lagophthalmos, epiphora, and muscle disturbances not included under diplopia. For such disabilities additional compensation shall be awarded, but in no case shall such additional award make the total compensation for loss in industrial visual efficiency greater than that provided by law for total permanent disability.

Compensation for loss in industrial visual efficiency, as provided for above, does not include compensation for any cosmetic defect, for mental or physical suffering, for cost of medical attention, or for time lost from gainful occupation during the period of treatment previous to final computation of compensation as provided for below. Additional compensation should be awarded for the

various losses here enumerated when not specifically provided for by statute.

REGULATIONS FOR COMPUTING COMPENSATION

Compensation shall not be computed until all adequate and reasonable operations and treatment known to medical science have been attempted to correct the defect. Further, before there shall be made the final examination on which compensation is to be computed, at least three months shall have elapsed after the last trace of visible inflammation has disappeared, except in cases of disturbance of extrinsic ocular muscles, optic nerve atrophy, sympathetic ophthalmia, and traumatic cataract; in such cases, at least twelve months and preferably not more than sixteen months shall intervene before the examination shall be made on which final compensation is to be computed.

In cases of additional loss in visual efficiency, when it is known that there was present a preexisting subnormal vision, compensation shall be based on the loss incurred as a result of eye injury or occupational condition specifically responsible for the additional loss. In case there exists no record or no adequate and positive evidence of preexisting subnormal vision, it shall be assumed that the visual efficiency prior to any injury was 100 per cent.

DISCUSSION

PRESIDENT CUNNINGHAM: Dr. Black's paper will be discussed by Dr. Harry S. Gradle, of Chicago.

DR. HARRY S. GRADLE: The paper given by Dr. Black was essentially a resume of the report of the Committee on Compensation of the American Medical Association. As he stated, this committee has been in existence for a matter of nearly six years and has been endeavoring to establish a uniform table, or rather system and method of computing the visual efficiency of an individual that has been injured. Of course, as our subsequent speaker, Mr. Wilcox, will show you, the percentage of visual injuries in the occupations is very small, less than one per cent of all injuries are those occurring to the eyes. It is not a question of whether or not there is a complete loss of vision in the eye. The state laws provide for the complete loss of vision of the eye, and with every case of that nature such a report as Dr. Black has presented would not be necessary.

The majority of cases of ocular injury reduce the vision or reduce the visual efficiency of the eye a varying amount. In the past there has been a great deal of disagreement among the members of the medical profession as to the efficiency of an injured eye.

It is hoped that this report will be uniformly accepted throughout the country, although the committee realizes that the report may not be absolutely just in all details to either the injured employee or the employer. However, it is believed that this report equalizes, as far as possible, all of the minor injustices that may arise in each individual case. It is obviously impossible for any compensation committee to consider each case as a law unto itself. Therefore, it is necessary that there be a basic formula such as is presented by this report upon which compensation may be computed for varied ocular injuries.

It is the purpose of this committee of the American Medical Association to continue with the work they have been carrying on for the past six years and present this report to the various medical societies, particularly the Ophthalmological Societies of the United States, until there has been a unanimity of opinion expressed by the ophthalmological and to a certain extent by the general medical societies of the country. When all of the parties concerned are agreed as to a basic report, as to a basic formula upon which compensation injuries may be compensated, then the medical profession will be in a position to step before any compensation board or any court of law and say, "The facts of the case are as follows. The vision of the injured man and his efficiency as compared to the efficiency of an uninjured man of the same character is as follows, consequently his efficiency is reduced so much," a certain percentage. The law can then decide the evaluation of that percentage. There will not be the disagreement among the medical profession and, consequently, there will not be the discrediting of the medical profession because of the failure of agreement as there has been in the past. (Applause.)

PRESIDENT CUNNINGHAM: This paper will be discussed further by Mr. F. M. Wilcox, the Chairman of the Industrial Commission of Wisconsin.

MR. F. M. WILCOX: Mr. Chairman, Ladies and Gentlemen: I come to you as a layman. I feel the obligation of expressing appreciation for the opportunity of appearing on your program. Again I want to say to the men and the women of the medical profession and to the hospitals of this state and to their wonderful staffs that the state of Wisconsin owes to you a very great debt of gratitude for the method with which you cooperated with the Industrial Commission in the matter of administration of workmen's compensation.

Last year we disposed of 22,766 compensation cases that caused disability of more than a week, and the amount of indemnity exceeded $4,200,000. Now that is some big problem, and without the cooperation of the medical profession it is a physical impossibility to administer any such law. Then again, I want to give special credit to the eye specialists and to this special committee that has been giving consideration to the matter of the handling of eye disabilities. It is one of the most troublesome problems that comes before compensation boards, and they recognize it as such, but they haven't been absolutely lost in the proper method of administration, and it is only because we can have the work of specialists that we can hope for the time to come when we can administer that feature of the law with anything like substantial justice to employers and employees alike and with decent self-respect for those who are administering the laws.

I have just come from the convention of Compensation Boards and Commissions at Salt Lake City, and we had under consideration this very report. I think perhaps if we had urged it with a little stronger power we might have procured the adoption of the report by that group of men. I was in attendance at the convention at Seattle just ten years ago in October when this question of rating eye disabilities first came before this group. I can't begin to tell you what misunderstanding there was at that time nor what misunderstanding there is at the present time as to the real essentials and the real bottom of the administration of this particular subject matter. I think this report that the committee has worked out in reality is a simple, yet just treatment of a very complex problem, and it must necessarily be so.

There are a few sections in the report that I want you to think about with me from the practical administrative standpoint. The doctor knows what they are. He makes mention of the fact that the rating should be according to occupation, because it is a well recognized fact that the same injury in different men will actually cause very different degrees of disability. For example, the man who works as an engineer on the railway receiving an injury to one eye or losing the sight of an eye, goes out of service immediately, as we all well know. He may not expect to continue in that type of work. Whereas, a man

who is a common laborer may continue, even with the loss of an eye, quite as efficiently as he did before. Because the injury to a single eye causes a very different character of disability than other types of what we call serious injuries, this problem becomes more complex. As I said, a man with the loss of the sight of an eye may go on working and producing as he did before, whereas if he loses an arm or a leg, his efficiency is cut at least one-half. On the other hand, when he loses the second eye, just exactly as when he loses the second leg, perhaps more so, indeed more so, he becomes absolutely, permanently and hopelessly disabled.

So it is going to be a difficult problem to administer these schedules from an occupational standpoint. Dr. Gradle said that we only had less than one per cent of eye injuries. That is not quite the fact. We have a very much larger percentage of eye injuries, but, of course, those that cause any permanent disability are only seven-tenths of one per cent of the entire accidents that occur in the state, and a very large percentage of those are the common laborers where the occupation will not make any particular difference about the extent of the man's disability, his working efficiency. So, after all, on this question of occupation and what loading should be given to that, it occurs to me that a general provision in the law should be made in those cases where it does particularly and especially affect the man in his occupation, and he should be given some additional compensation. That may be well left to the Industrial Committee.

I recognize the fact that there is always antipathy and objection to the allowing of an industrial commission to have a freer field, but we go out, men and women, you go out and submit any old case you have, I don't care how complex it is, to a jury of twelve persons selected at random, the butcher and baker and the candlestick maker. As a matter of fact, the attorneys that select the jury pick out those that know less of the case than anybody else. That is one inquiry they make of the jury as to whether or not they know anything about the problem that is to come before them for decision. The man that knows the least is the man that is selected.

The Industrial Commission should be given some consideration after some years of experience in being able to judge on the advice of doctors what ought to be done in a particular case. I think that goes without saying.

We are rather more fortunately situated in this matter of the adoption of the report in this state than they are in other states, because the continuity of office holding, so far as the Industrial Commission goes, has been rather better here than it has been in some of these states. Some of them don't get into their seat before they are out again, and they cannot hope to know much of the game. Here we are able to study our problems and really to get the cooperation of a legislature in correcting our laws to bring them to a workable standard, and we are the one state in the Union outside of California which has a very complex system. I think it stood in the way of the possible accomplishment of things in this direction, because it is so complex; it is a great big book that you have to study and then may not know what it means. Here in Wisconsin two years ago we had a legislature that was willing to adopt a schedule which gives not only wage and nature of injury, but gives age. That is not done in other states, and that is a very great advance.

Dr. Black's figures, as I recollect them, for the loss of an eye, total loss of vision of one eye, rates disability at approximately twenty-five per cent of permanent total disability. Under our schedule, at the age of forty-four we reach the point where we base the amount of compensation on twenty-five per cent of permanent total disability and then it grades according to age and the number of weeks that the person draws for, likewise grades according to age. No other state has that. It means the menace of this law in order to make it possible to administer the compensation act as applied to eye disabilities to the point where we can apply this schedule. I didn't press it so much at this last convention because there are no legislatures, or practically none, meeting this next year. We meet again at Hartford, Connecticut, in a year from now and before the next session of the legislature. I really hope that we will then be able to adopt something as tangible as that which I have mentioned.

I thank you very much. (Applause.)

A Consideration of the Psychoneuroses, Including Heredity and Environment Influences*

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It is not the intent in this discussion to establish the relative importance of the influences of environment and heredity but to show that a certain part is played by each in the development of the psychoneuroses. It is not so many years ago that thinking men assumed the position that environment was of all importance, not only in the development of an individual but in the evolution of a race. In the past few years so much evidence has been produced to show the great importance of heredity that there is danger of going too far in this direction.

The assumption that man is the product of, and is limited by, the contributions of his ancestors is a very discouraging one as regards his development. That this inheritance may be modified for good or bad by environmental influences gives us a more hopeful attitude. This is particularly true of the psychoneuroses, for here we are dealing with a condition that is amenable to treatment and one that contributes more to the physician's practice than any other form of nervous and mental disease. The term "psychoneurosis" has been called a euphemistic disguise, inferring that the name does not apply to a certain clinical picture, and that most of the conditions coming under this head are really mental diseases. It is true that no two authors' classifications of the neuroses and psycho-

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neuroses are alike. Nevertheless, certain syndromes, be they called what they may—neurasthenia, psychasthenia, hysteria or psychopathic forms of reaction, must be recognized as not being psychotic, but at the same time showing an abnormal reaction. As far as this discussion is concerned they may be considered generally; that is, unclassified.

Primarily in the diagnosis of the psychoneuroses, somatic and psychotic disease must be excluded. This is not at all easy, as many of the symptoms are peculiar to beginning dementia praecox, involutional melancholia and manic-depressive psychosis. The utter exclusion of a somatic disease is seldom a certainty. The picture of the psychoneurosis varies in every case as the personality of the individual reacts to the condition. There is generally mental and physical fatigue which may be accompanied by inhibition or acceleration of cerebration. Almost always the patient has restlessness and insomnia, inability to collect the thoughts and an apparent loss of memory. Depressions with self-accusatory ideas, compulsions and obsessions are frequent. Insincere attempts at suicide are not uncommon. The manifestations of organic disease are many, varying from headache to paralyses of more or less extent. Evidences of endocrinal and metabolic disturbances are generally present, for which there may be just cause, as may be shown later. To be noted in these patients is the marked *dominance of the affect* with its unlimited variations over the more narrowly confined intellectual functions. This exaggerated affectivity is a decisive factor in distinguishing between the hysterical reaction and a true organic condition and in recognizing stupors, obsessions, confusions and emotional outbreaks.

HEREDITY

On first thought it seems a far cry from the psychoneuroses to heredity, but those who see large numbers of these individuals are impressed by the frequency of heredity taint. By that term I do not mean merely that an ancestor was nervous or queer but showed an abnormality that was comparable with that of the patient and frequently was definitely psychotic. This occurrence is too frequent to dismiss it as incidental and the phenomena are certainly as worthy of study as the more familiar hereditary diseases.

So far the method of approach in the study of disease from an hereditary standpoint has been most unsatisfactory. The application of Mendelian principles for several reasons is unsound. In the first place it is necessary to give material form to the unit characters supposed to be contained in the chromosomes, which can in no way be verified. While Mendel and others could limit to a certain extent the number of these unit characters in the study of plants and lower forms of animal life, in the human frame the number in comparison must be enormous and the same laws cannot apply. These same men in their studies were able to ascribe a dominance and recessiveness to certain characteristics but to the higher organisms they are only relative terms and a characteristic may show dominant traits at one time and recessive at another. Mendelism negates the inheritance of acquired characteristics, a controversy that is far from being settled. Mendelism does not admit of a sex limited inheritance but we see it in hemophilia where only the males are affected though the disease may be transmitted through the females. So as yet the application of Mendelian principles to the transmission of disease in man is not justified.

Another method of study of the inheritance of disease is that of the biometricians. Briefly, that method is to ascertain the prevalence of the disease in the population at large and from, say a thousand cases, estimate the incidence of the disease in the ancestry and collaterals and then form the same estimates in a thousand persons without the special disease. Although this method of study of the problem is thought by many to be more adaptable to the human race, it is not without error. Despite the errors caused by the inability to include in the statistics the diagnosis of those dying young, the miscarriages, the wide practice of birth control and the errors in diagnosis made by the untrained statisticians, the statistical is probably the best method we have for the study of inheritance in mental disease. It is on statistics mainly that the inference is drawn in this discussion that there is a hereditary factor in the psychoneuroses. In the last one hundred cases seen by us, hereditary taint was found in sixty per cent, either in the direct or collateral lines. In but few cases did we see the same disease transmitted; generally it was what might be called a hereditary equivalent. These equivalents were found to be interchangeable in the different gen-

erations; a psychosis at one time, migrane at another, or perhaps chorea or epilepsy. In view of these facts we do not feel that any particular disease is transmitted but that it is the unstable organization or a morbid aptitude that is inherited.

ENVIRONMENT

The unstable individual meets the same problems and difficulties as does the brother or sister with a more adequate equipment. The inability of the unstable members of society to make a proper adjustment to the complexities of life, to overcome the many problems, results in the retreat to the psychoneurosis. The mechanism functions almost entirely in the unconscious. The wish alone cannot produce the disease. If this were true there would have been many more thousand cases of shell-shock than actually occurred. There must be an underlying predisposition to the condition. But at the same time we must take into consideration that a psychoneurotic individual with abnormal parents has been reared in an unhealthy environment; but had the environment been better would the individual have developed his psychoneuroses? The same may be said of shell-shock. What influence did the psychoneurotic soldier's training have, that might be a predisposing factor in the development of the condition?

When the inadequate individual finds situations in life that he is unable to meet, his recourse is "flight into disease." Therefore, a careful investigation into the life of an individual with a psychoneurosis will disclose the fact that there is an advantage to be gained by having the disease. To illustrate:

V. H., female, age thirty-four, father alcoholic, maternal grandmother psychotic. She was unhappily married and quarreled violently with her husband and mother-in-law. The latter had tuberculosis. The patient developed a morbid fear of tuberculosis and the mother-in-law. After the death of the husband's mother the quarrels continued, the home life being most unhappy. In addition to the fear of tuberculosis, the patient developed one for funerals and anything that suggested them, such as rough-boxes, undertakers, etc. Contact with such things precipitated a severe reaction in which the patient would be terror stricken, scream and refuse to stay in her home. Hospitalization was necessary and relief was afforded by the administration of morphine and whiskey. She did not become addicted to these drugs but enjoyed the relaxation that they afforded her. She was never in a sanitarium or hospital very long for as soon as the initial attack subsided she seemed quite normal and was soon dismissed. On returning home she would endure its unpleasantness as long as she could and then seize on the first funeral procession or chance meeting with some one who had recently attended a funeral, for an opportunity to become hysterical, get away from home and enjoy the comforts of morphine and whiskey.

M. B., female, age forty, father was depressed for a number of years and one half-brother was a suicide. Her trouble started when a friend died of carcinoma of the rectum. She had spent a great deal of time with him during his illness, reading to him, etc. Shortly after his death she developed the fear that she had a cancer of the rectum. From this she soon became a typical psychoneurotic, depressed, had many pains and aches, slept poorly and feared that she would become insane or that she would commit suicide. Investigation of her marital life showed that sex relations with her husband were never satisfactory; she could not accomplish orgasm unless she imagined he was another man. He was the most attentive and sympathetic man I have ever seen, yet it was obvious that his visits at the sanitarium annoyed her and she was glad to have him leave. Nothing he did seemed to please and his rough ways and homely expressions were distasteful to her. She was a refined high type of woman, not at all blind to the many things he did for her. After four years in sanitaria she continues to have depressed episodes, always in the morning, and these are accompanied by various physical ailments. Her afternoons and evenings are spent in shopping, playing golf and cards. Outside her bedroom she is pleasant and cheerful. It is evident that she feels that she married somewhat beneath her and that she has never been able to forget or find compensation for the man that died. Were it possible to explain this mechanism to her so that she would understand and believe it, she would no doubt make a faster adjustment. As it is, she is making a slow progress and will in time be well enough to go home. A recurrence, however, would be very probable.

These conflicts are not limited to marital rela-

tions by any means. Any of the many problems of life may precipitate a psychoneurosis if the soil is right.

Of the many symptoms complained of there is frequently just cause and an organic basis for some of them. It is fairly well established that there is an intimate relationship between the psyche and the endocrine system. It has been shown that primary disease of some of the internal glands results in a psychoneurosis or psychosis, such as Graves' and Addison's diseases, acromegaly and tetany. Conversely it has been shown that mental disturbances can cause pathological changes in the internal glands. Many of the symptoms we see in the psychoneuroses can be caused by dysfunction of one or more of the internal glands. The asthenia might easily be caused by adrenal insufficiency. Headache is frequently caused by hyperthyroidism. The same gland is frequently responsible for insomnia, sweats and anxiety. From a hereditary standpoint there are probably more defects of the internal glands transmitted than of any other system in the body.

Therefore the study of these conditions should embody particularly close observation of the endocrine system and the sympathetic nervous system. The fact that a patient has a poor heredity does not preclude the value of treatment; the symptoms are curable if not really cured. The disposition is not cured because it is congenital. Bleuler says that what is done is a detail; the decisive thing is how one does it and how one stands with the patient.

Since the patient is unable to properly adjust himself to his environment, the reason for the mal-adjustment should be determined. It is generally necessary to withdraw him from his environment for a while. Frequently when he is acquainted with the difficulties, he is able to make an adjustment. The explaining of the mechanism makes things clear that confused him before; he is shown his limitations and how not to exceed them. A purpose in life should be created for him. Every individual is an individual problem which includes his manner of reacting and the weighing of the many accompanying conditions that influence his problems.

CONCLUSIONS

To recapitulate:

1. While heredity plays an important part in the development of the psychoneuroses, that factor does not preclude the value of treatment.

2. Environment can modify hereditary influences for good or bad.

3. A large per cent of psychoneurotics have a poor heredity but Mendelian and biometrical laws are not applicable in the study of the inheritance of disease.

4. A constitutional predisposition is inherited and not the disease.

5. The importance of environment is shown by the fact that in almost every case of psychoneurosis there is a mal-adjustment to the environment that results in the flight into disease.

6. There is generally an associated endocrine or metabolic disturbance.

7. Relief from the condition is afforded, acquainting the patient with the reasons for his mal-adjustment, remove the conflicts as thoroughly as possible, and have the patient find a purpose in life.

DISCUSSION

PRESIDENT CUNNINGHAM: The discussion on Dr. Howard's paper will be opened by Dr. R. E. Mitchell, of Eau Claire.

DR. R. E. MITCHELL: Dr. Howard was good enough to send me his paper, so much that I will have to say will be a sort of modified amen.

None of us can fail to be interested in the subject which Dr. Howard has presented. Some wag has said that in order to get a good start in life one must pick out a good grandfather and be very critical of his grandmother. Certainly a child with a good heredity is born rich. One with indifferent heredity can be improved by education and environment, but the process is tedious, the work painstaking and not for amateurs, and progress will be measured by generations.

The problem of the neuropath is an ever increasing one. The so-called hereditary factor greatly overshadows the environment factor in these conditions. Few family trees are absolutely free from this blight. Many families have slumped and withered and finally disappeared because of a preponderance of these unfortunate traits. Physicians are constantly coming in contact with these individuals. They come to the general practitioner first, more often the milder types or in the earlier stage. The busy specialist sees them as a complicating factor in his particular line of work. The neurological specialist sees many of the graver types so far advanced that home care is unsatisfactory and sanitarium or hospital care is advised. Convalescent homes are crowded with them. In all the fields of medicine as it is practiced today I think there is no sorrier spectacle than a candid survey of the status of the so-called neuropathic patient. Perhaps a rather intimate and too prolonged institution experience with the graver types of psychoneurosis have made me pessimistic, but following this a rather varied experience in general work has not tended to make me optimistic in regard to even the earlier and milder types. The thoughtful physician is impressed with the fact that with such a patient he is dealing with an atypical type so far off the normal social road and so bent on going his own way that he feels inadequate to cope with the situation. In these cases the family doctor will often tell how much like her mother and her grandfather so and so is and he is quite right. These patients start wrong in most instances and relatively late

in life we try to make them fit into our social groups. Their life history is a story of one sort of friction and conflict after another. We attempt to crowd a square peg into a round hole and ofttimes the pegs are cross grained and crooked.

As a result of an extensive study of heredity in insanity, constitutional psycopathic states and the psychoneuroses based on the best family records we have in this country (and we ought not to boast much about our records) Rosanoff shows that the old Mendelian law of heredity works out on much the same basis in the human family as in lower forms of life. Burbank emphasizes the statement that heredity is "stored environment." The average existence is a fight with environment and probably a certain amount of friction is advisable. Man responds more readily to hereditary influences than any other organism, probably for the reason that he has more hereditary experiences to draw on. Experience tells us that the most efficient type of man is a hybrid. The great problem is to amalgamate persons not too near and yet not too widely differentiated. One of the curses of a democracy is the haphazard way in which uncultured types are mated. In sharp contrast is the limited aristocracy with intermarriage and decay due to a lack of new energies and traits. When our nation goes about it systematically to do the things that we theoretically ask of the individual who can deny what wonderful results will come to our future generations (good health, vigorous minds, enlarged working capacity, moral stability and all of the good things that go to make up the ideal person we would all like to be).

I agree most heartily with Dejerine, an ardent believer in psychotherapy, in regard to the treatment of these patients. He believes that the proper procedure is "the psychotherapy of persuasion" which should always be directed to any special symptoms as well as to the mental and moral makeup of the individual which permits such an abnormal development. (Applause.)

Radium in the Treatment of Uterine Fibroids; As Observed in 110 Cases

BY L. D. QUIGLEY, M.D.
Green Bay

That preventive medicine has failed as yet to produce any means of prevention of uterine fibroids cannot be doubted. Within the past two decades the treatment of fibroids has been revolutionized by the perfection of technique in the use of radium. This has, indeed, been a step forward, for the treatment with radium has so many advantages over routine surgical procedures.

When we consider the usual age of the patients (i. e., 35 to 60 years) who come to the practitioner for the treatment of fibroids we see a group of patients who are not to be classified as the best surgical risks. We see a class of patients who make us hesitate to advise surgery—hesitate from many stand-points, i. e., the mother of a family just beginning to enjoy life after the cares of bearing and rearing small children; we hesitate, too, when on examination we find many whose circulatory systems forbid, whose kidneys make us hesitate. In short we hesitate to advise surgery to this class of patients in whom we know that there is a certain mortality rate in spite of the most skilled operators. This fact cannot be overlooked by the conscientious practitioner.

Radium treatment eliminates the danger that accompanies such surgery. In the greatest number of cases an anaesthetic is not needed. In fact, only in cases in which the cervix is closed either by fibrosis or by multiple small fibroids do we find it necessary to use an anaesthetic during the dilation of the cervix. Surgical shock, that common complication of major surgery, is entirely eliminated. Infection and intra-abdominal bleeding, those serious complications which attend abdominal surgery, are eliminated when fibroids are treated with radium. These facts cannot be overlooked when we consider the choice of procedure for our fibroid cases.

Let us consider the technique, action, indications, contra-indications and complications of radium in the treatment of uterine fibroids.

TECHNIQUE

The indicated amount of radium is screened with silver and pure gum rubber and inserted into that portion of the uterine canal proximal to the fibroid. After the radium has been inserted, the vagina is packed firmly to keep the application securely in position. The patient is put to bed, made comfortable and instructed to remain quiet on her back until the radium has been removed; usually 12 to 24 hours depending upon the age and condition of the patient and the size of the tumor. This is repeated after 24 hours rest period. Following the second treatment the patient is advised to remain in the hospital for 24 hours and is then allowed to return home. In all she is hospitalized 4 to 5 days. The patient is then allowed to go on with her usual routine as she did previous to coming to the hospital. How different this is from the post-operative period at the hospital and the long convalescence period after surgery.

ACTION

The action of radium is destructive. Having less resistance to the gamma rays of radium than does the normal tissue, the fibroid cells are destroyed with no apparent clinical or microscopical changes in the normal uterine tissue. Clinically, the only signs of destruction are an increase in

uterine discharge for three to six weeks with a rapid decrease in size of the fibroid uterus. The fibroid continues to diminish in size after the cessation of uterine discharge and bleeding. After a period of three to six months the uterus on examination is found to have gradually diminished to the size of a normal post-menopause uterus.

EFFECTS

The effects of an intra-uterine radium irradiation can be measured by the effect on menstruation, i. e., there is a progressive decrease in size of the fibroid uterus during the period of cessation of menstruation. In patients of the child-bearing age the object in treatment is duo-fold—to destroy the tumor and to avoid permanent damage to the ovary. It is, therefore, the aim to produce a temporary cessation of menstruation of twelve to eighteen months. This can be accomplished through proper dosage. In patients at the age of menopause the dosage need not be calculated on ovarian effects. In these cases the patient usually experiences one or two periods of scant flow and subsequently ceases to menstruate.

INDICATIONS

Any fibroid of the uterus which is not pedunculated and which is no larger than a full term infant's head indicates radium as the treatment of choice. Certain constitutional complications of fibroid specifically demand radium in preference to surgery. Among these are: arterio-sclerosis, hypertension, Bright's disease, myocardial or valvular heart disease, diabetes, tuberculosis, and any case that might be classed as being below a first class operative risk.

CONTRA-INDICATIONS

There are several contra-indications to radium in the treatment of uterine fibroids. The following are outstanding.

Large pedunculated fibroids are not to be treated with radium, as their pathologic anatomical position brings them out of the area of greatest intensity of the destructive rays, and doses sufficient to destroy them would also destroy normal tissue contiguous to the uterine canal.

Fibroids larger than a full term baby's head contra-indicate radium for the same reason.

Active tubal infection is greatly enhanced after an intra-uterine radium application and therefore treatment is contra-indicated in any fibroid case which shows signs of an active tubal infection.

COMPLICATIONS

The complications of radium treatment are few and fortunately not serious.

Often for the first 24 to 72 hours during or following the treatment the patient complains of lassitude, weakness, nausea and occasionally, vomiting. The intensity and duration is variable. All symptoms of this so-called "radium sickness" disappear in 24 to 72 hours.

Occasionally a latent tubal infection shows an acute exacerbation following an intra-uterine application. This, however, follows the usual course of any such exacerbation and results in no serious permanent trouble.

CONCLUSION

In a series of 110 cases treated at the Radium Institute of Green Bay the results have been most gratifying. Our records show no mortality that could be traced to radium treatment. This fact cannot be looked upon as a mere coincidence but rather as a sign that the treatment of fibroids has been improved upon. Surgical statistics the world over show that 2 to 4 per cent of the cases of fibroid operated, die of one of the many complications that may be attributed directly or indirectly to surgery. In our series we feel that 2 to 4 patients in our first 100 cases have been spared from surgical mortality. Human life has been spared by an advance in treatment of a common disease.

Shall we, therefore, continue to advise surgery to a class of patients in which we know that one in 25 to 50 perish—or shall we give them their best chances by a safer method and one which is so much less disabling and so much easier for the conscientious practitioner to advise successfully.

CASE RECORDS

The following is an account of a few of the Case Records which demonstrate the course of treatment and results obtained:

Case No. 159. Age 35—married—two children; younger, aged nine. Entered Hospital Feb. 1, 1921, complaining of dysmenorrohoea, menorrhagia, metrorrhagia and general weakness of three months' duration.

Bimanual examination revealed a hard, firm, symmetrical, freely movable uterus about the size of grapefruit.

Cervix: lacerated, eroded, angry in appearance, muco-sanguinous discharge from uterus.

Diagnosis: general fibrosis of uterus.

Feb. 2, 1921—Intra-uterine treatment—1850 mgm hrs. of radium.

Feb. 6, 1921—Patient returned home showing no signs of "Radium Sickness."

Feb. 26, 1921—Examination shows cervix markedly inflamed. Profuse muco-purulent discharge.

March 10, 1921—Patient menstruated three days, no pain.

July 7, 1921—Patient shows normal cervix, very slight mucus discharge. Uterus normal in size.

Patient has had no menstruation since March 10, 1921.

Sept. 20, 1921—Clinical cure—slight leuchorrhoea.

Case No. 240—Age 31, married,—no pregnancies.

Entered hospital Sept. 6, 1921, complaining of dysmenorrhoea, menorrhagia and metrorrhagia of two years' duration.

Bimanual examination reveals a large, firm, smooth, symmetrical, freely movable uterus, size of a four months' pregnancy.

Cervix: no lacerations,—profuse bloody discharge from cervical canal.

Diagnosis: fibroid uterus.

Sept. 7, 1921—Intra-uterine radium treatment for 1200 mgm hrs.

Sept. 10, 1921—Patient left hospital. Has experienced no "Radium Sickness."

Nov. 18, 1921—Patient states she had one period since treatment. Said period was 14 days following the application. Cervix shows muco-purulent discharge. Uterus one-half size original examination.

Feb. 8, 1922—Cervix and uterus normal—no flow or discharge.

Case No. 534—Age 48, married; seven children, youngest 10 years. Entered hospital complaining of severe menorrhagia and metrorrhagia of three years' duration. Extremely weak following periods of marked uterine hemorrhage.

Bimanual examination—Uterus size of three month's pregnancy.

Nodular and firm with considerable pain and tenderness in region of left tube and ovary.

Cervix—lacerated, eroded, everted and angry in appearance.

Serosanguinous discharge from canal.

Sept. 5, 1923—2400 mgm hrs. into uterine canal.

Sept. 6, 1923—Patient complains of pain on left side of pelvis.

Sept. 8, 1923—Patient left hospital feeling about same as on entrance.

Oct. 17, 1923—Patient complains of severe pain in left side with marked leucorrhoea since returning home. Menstruated Oct. 12.

Nov. 7, 1923—Still shows some tenderness in region of left tube and ovary. Still some bloody discharge.

Dec. 19, 1923—Patient feels much better. No pain nor tenderness. Some mucus discharge; uterus reduced to practically normal size.

March 19, 1924—Patient feels fine. Still has slight leucorrhoea. No menstruation. Uterus normal in size.

This case demonstrates the exacerbation of a chronic tubal infection after radium application.

Case No. 490—Age 47; married, three children, youngest twelve years. Entered hospital complaining of a continued uterine hemorrhage, of variable degree for six months previous to entrance. Patient was extremely weak; appeared pale and underweight. Haemoglobin 60%. Bimanual examination shows uterus freely movable, hard, irregular in outline, about the size of an orange.

Cervix: lacerated. Profuse sanguinous discharge.

May 22, 1923—3000 mgm hrs. inserted into uterine canal.

May 24, 1923—Patient returned home, having shown no signs of "Radium Sickness."

Oct. 15, 1923—Patient has had no menstruation since treatment. All evidence of hemorrhage ceased within twenty days of radiation. Patient has returned to normal weight. Blood count normal. Strength returning rapidly.

Examination: Revealed a uterus normal in size. No evidence of discharge.

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

Immunity Against Tuberculosis in Childhood

BY GEORGE R. ERNST, M.D.

Chief, Division of Tuberculosis, City Health Department
Milwaukee

It has long been known and is now generally accepted that tuberculosis is a disease of childhood. The autopsy findings of Naegeli, of Ghon, and of Opie have too well proven that by the end of 14 or 15 years practically every child has passed through its first attack of tuberculosis. As an example of this may I be allowed to mention that Smith of Harvard University in 200 consecutive autopsies at the Infants' Hospital in Boston found exactly 40 cases of tuberculosis, an incidence of 20 per cent in babies under 2 years of age.

This is not a surprising fact when one considers the innumerable possibilities that are present and sufficiently potent to infect children. Milwaukee at the present time has about 1500 known cases of tuberculosis. Of these at the most 500 are segregated more or less, and 1000 are at large. Some of the latter are well aware of their condition, but there are certainly many carriers of the tubercle bacillus who regard themselves healthy and yet the germs of tuberculosis can be found in their sputum. It is known that the course of tuberculosis runs along very slowly so that months, perhaps years, may pass without the person affected being very ill, yet during the entire time he may be able to infect others, especially the immediate members of the family. Again it is not at all necessary that the condition of a carrier of the tubercle bacillus is manifest to the surroundings of such a person or to the public in general. For instance, all of us in memory know of old men or women who were troubled with a regularly recurring winter cough and a certain amount of weakness, not sufficient perhaps to cause them to live the life of an invalid and yet interfering with the pursuit of a regular occupation. Often such are delegated to take charge of their grandchildren, while the sons and daughters

pursue their way to making a living. Nobody pays much attention to grandfather's or grandmother's coughing, since so many old people have a continuing cold or catarrh, nor to the slight weakness, since that is a necessary accompaniment of advancing years. Yet not infrequently these old people who complain of nothing except a winter cough are frequently tuberculous and harbor tubercle bacilli in their sputum. As a proof of this may I state that the inmates of an almshouse have been examined with this object in view and 25 per cent of them were found to be tuberculous and able to infect others. In my own experience, I am able to recall a number of instances where a grandmother unknowingly and innocently infected a grandchild, and unfortunately with very serious result.

It is commonly known that the average life of a person suffering from tuberculosis has been decidedly lengthened. Formerly we regarded two years a fair average, but now five years is more likely to be the span of life allowed a consumptive. With the lengthening of the morbidity period necessarily the likelihood of infecting others has been greatly increased, especially since with lengthening of the course of the disease, the degree of feeling sick has been decreased. The number of cases of "galloping consumption" which we so frequently saw in years gone by are now quite seldom and rarely found. I mentioned five years as an average, but longer periods of illness are not at all infrequent. I can recall three cases that have been bacilli carriers for over twenty-five years. All three of these are up and about, two of them being men who daily, without interruption, follow their occupation, mingling freely with other people in the pursuit of their vocation. Needless to say their appearance gives no indication of their condition; yet how many persons may they have infected?

Need we be astonished that the Chief of the Tuberculosis Division of the United States Public Health Service published as his opinion the statement that 50 per cent of all adults are intermittent carriers of the tubercle bacillus? Nor is he alone in his opinion. Calmette, the well known French student of the subject of tuberculosis, states that every one who reacts to the tuberculin test, even though apparently entirely healthy, is an intermittent spreader of germs, the more dangerous because unsuspected.

Reviewing these possibilities of infection need we be surprised at the fact that the largest number of school children are passing or have passed through an attack of tuberculosis. Of course you will understand that being infected with the tubercle bacillus does not at all mean that these children all have active tuberculosis. The virulency of the infecting organism is usually not sufficiently high that it may not be neutralized by the anti-bodies in the system of the child. Within a shorter or longer period of time the organisms are walled off, usually in the lung, and are now no more active.

RESULTS OF INFECTION

The result of this early infection is by no means always harmful. On the contrary this early infection produces a relative immunity in human individuals against subsequent infections, which we know are unavoidable. The immunity against a tubercular infection is in a way similar to the immunity produced by any contagious disease against its recurrence. Thus one attack of measles practically immunizes against a second attack, an attack of diphtheria against a second attack of diphtheria. To be sure the immunity produced by an attack of the tubercle bacillus is not as nearly absolute as that of the other infectious diseases, because tuberculosis in the largest number of instances is not a very acute, but a slow chronic disease. Hence the organisms producing it are not destroyed by an attack, but the immunity effected is sufficiently potent to prevent the development of the tubercle bacillus.

The bacilli that have invaded the body preceding an early attack are hence both a source of immunity and a source of danger. The determining factor whether they will be beneficial or harmful is the constitution in its widest meaning of the individual. Ever after the first invasion of the tubercle bacillus into a human system there will persist throughout life a continuous fight between the germs deposited into the body and its vitality.

It is a matter of good fortune that in this warfare, the individual is aided by antibodies coursing in the blood due to generations preceding who, too, have successfully fought the tubercle bacillus. Such a fight going on and having gone on for generations in very many persons in a country has in its individual success brought about greater or less immunization of entire countries.

This is very similar to a country being immun-

ized against any one of the infectious diseases. For instance measles which at the present time is a disease with a mortality rate of about 2-3 per cent, was able to kill 40,000 out of 150,000 inhabitants of the Fiji Island when it was first introduced into this dominion by members of the crew of the English man-of-war Dido in 1875. It is due to the many cases of tuberculosis that we are being immunized more and more against tuberculosis. Hand in hand herewith is manifest the observation that city people are more immune against tuberculosis than the inhabitants of rural districts. In our work in the city of Milwaukee it is very noticeable that foreigners furnish about three-fourths of our cases of tuberculosis. Among the foreigners we find, especially, inhabitants of the provinces of the former Austrian Empire, of parts of Ireland and Norway, in other words inhabitants of agricultural countries. Living in the country the inhabitants did not mingle very much, they lived and worked at a distance from each other and hence did not infect each other. On the other hand the inhabitants of England and Germany with their large industrial development, worked together in factories, lived closely to each other in large cities, mingled freely in entertainments and visits and thus offered frequent opportunity for infection. With the frequent infection a gradually increasing national immunity was produced which the inhabitants of an agricultural country did not experience. To this same relative immunity is due the fact that we see so few cases of galloping consumption and that the individual cases of tuberculosis are far less acute than they formerly were. It is largely due to the frequency of infection and on the other hand to better living conditions increasing the vitality of the individual that we owe the very marked decrease in the mortality rate due to tuberculosis.

Of late it seems very likely that the most dangerous period of life as far as tuberculosis of the individual is concerned is the one composed of the first three or four years of life. To study this question the Tuberculosis Division of the Health Department of the City of Milwaukee made a survey of all cases of tubercular meningitis that have been reported in this city during the past four years.

Tubercular meningitis was chosen because it is the more prevalent form of *acute* tuberculosis, and as such is most likely to be found at a period before the body has been immunized by a preceding infection.

CASES OF TUBERCULAR MENINGITIS ON RECORD DURING 1921, 1922, 1923, AND 1924

86 CASES REVIEWED

In 25 cases infection traceable.....29%
In 61 cases infection not traceable.....71%

Conclusion: Acute tuberculosis is in the larger number of cases of unknown origin, certainly only too familiar.

TUBERCULAR MENINGITIS

Period of exposure at time of diagnosis	Number of cases
2 months	3
3 months	3
4 months	1
6 months	3
7 months	1
8 months	1
9 months	3
1 year	6
1½ years	2
2 years	2

Conclusion: When in acute tuberculosis the infection is traceable it has taken place a comparatively long time, about a year, preceding active manifestations.

TUBERCULAR MENINGITIS

Age at Death	Number of cases
3 months	4
6 months	3
7 months	1
8 months	1
9 months	5
1 year	22
1¼ years	3
2 years	6
3 years	4
4 years	7
5 years	6
6 years	1
7 years	2
8 years	3
9 years	2
10 years	3
13 years	2
16 years	1
17 years	2
21 years	1
22 years	1
23 years	1
24 years	1
31 years	1

Conclusion: Acute tuberculosis occurs early in life, since later on the unavoidable infection produces a relative immunity which is sufficiently

potent in the majority of instances to prevent a rapid course of the disease.

Looking at the same problem from another point of view, we have made another survey to discover the present condition of children who at an age of less than three years have been exposed to tuberculosis by living with a tuberculous mother, father or other member of the family.

	No. of cases	Condition of pos. sputum carrier at present	Condition of Child: Healthy	Condition of Child: Active T.B.	Condition of Child: Dead	Home Careful
Mother pos. sputum at birth of child	21	Apparently well... 1 Active T.B. 4 Dead 16	13		8	yes 6 no 15
Mother pos. sputum after birth of child	26	Apparently well... 0 Active T.B. 6 Dead 20	26			yes 14 no 12
Father pos. sputum at birth of child	17	Apparently well... 0 Active T.B. 6 Dead 11	17			yes 12 no 5
Father pos. sputum after birth of child	8	Apparently well... 0 Active T.B. 4 Dead 4	7	1		yes 5 no 3
Other member of family pos. sputum at birth of child	7	Apparently well... 0 Active T.B. 4 Dead 3	7			yes 3 no 4
Other member of family pos. sputum after birth of child						
Total	79		70=90%	9=10%		

Present age of Child	Number
2 months	1
1 year	6
1½ years	6
2 years	15
3 years	18
4 years	7
5 years	2
6 years	4
7 years	4
8 years	2
9 years	1
10 years	2
22 years	1
27 years	1
	70

The immunity and vitality manifested by these babies is markedly evident. Though the condition of the infecting person is disastrous, the chance of the infected child appears much better than was commonly supposed.

It is our endeavor to continue, through future years, our observation of the children that have thus been exposed.

Since it has been proven that tuberculosis is a disease of childhood and that about 90 per cent of the children that have reached the 14th year have been infected with tubercle bacillus it was interesting to find out how many of Milwaukee's 80,000 to 90,000 school children die annually of tuberculosis of some form or other. We hence searched the Bureau of Vital Statistics with the following results. Deaths between 5 and 15 years due to tuberculosis of

		Lungs	Miliary T.B.	Meningitis
1920	20	8	5	7
1921	7	3	1	3
1922	11	5	1	6
1923	19	6	.	13

The latter high number is due to an epidemic of measles and whooping cough, diseases which are known to be likely to awaken to marked activity any germs of a former infection with the tubercle bacillus. These numbers are surprisingly low when comparing them with the large number of those infected. The only way we have of explaining the phenomenon is the presence of an immunity brought on by an early infection.

CONCLUSION

Koch's discovery of the tubercle bacillus unfortunately brought about a one-sided viewpoint as

to the prevention of active tuberculosis. Scientists being able to isolate the germ that would produce tuberculosis when inoculated into an animal too readily concluded that if the germ were prevented from entering the human body the disease would be stamped out in course of time. The entire point of attack was directed upon the germ and infection. This scheme did not prove successful, principally because it is impossible to control or segregate the bacilli carriers and secondly because it disregarded the phenomenon of immunity.

This marked immunity against tuberculosis found in childhood seems to insist that in a fight against tuberculosis we dare not place the principal stress upon the infection. Of course we would not disregard infection, since we never know how massive or how virulent the bacilli may be, but we must interest ourselves especially in the constitution of the individual in its broadest meaning and at a time when a good foundation can be laid for a future strong superstructure. This, in short, places the entire problem of prevention of tuberculosis in childhood, and forces us to link up our endeavors with our system of medical school inspection.

THE JOURNAL CLINIC

A Case for Diagnosis

BY L. M. WARFIELD, M.D.
Milwaukee

A small boy eight years old was brought to me complaining of pain and stiffness in the right knee which he had had off and on since he was four years old. His mother thought that he had struck his knee but she could not remember that it was ever really injured.

Both his parents are living and in good health. The mother is tall and thin but has not tuberculosis. There is no syphilis and the child's environment has always been of the best.

He has had whooping cough and scarlet fever, both moderately severe, with no complications or sequelae. He has had his tonsils enucleated and his adenoids removed. He is a bright, intelligent boy of a placid disposition. About six weeks ago a gland was removed from the left posterior triangle of the neck.

His difficulty dates back four years. At first he had periodic attacks of pain and stiffness in the right knee. The knee was always held completely extended. There never has been any redness, heat or swelling of the joint. The pain would frequently come at night and wake him up. Next day his knee would be stiff and he would complain of pain under the knee. He would walk with a stiff knee. He could bend it, but when bent it was hard to straighten the leg. After a few days the disability would completely disappear. His mother thought that whenever he had a cold the knee would then become stiff. For the past three years the left knee has been going through the same series of events. First one knee then the other knee would be stiff.

Every winter he takes cod-liver oil and every summer he lives out-of-doors in the country. His appetite, digestion, bowels, urine are normal.

He is a sturdy well grown boy for his age wearing prism glasses to correct an internal strabismus at the right eye. His head is well formed, ears are rather large and placed rather low. Pupils are normal in size and shape and react normally. Mucous membranes are good color. The two upper central incisor teeth are small and rough at the edges. There is a small linear scar at the posterior triangle of the neck at site of operation for removal of gland. The thyroid gland is not enlarged. (He has had iodine in prophylactic doses). There are shot-like glands at the apices of both axillae.

The chest is well formed and normal. The heart is normal. The abdomen is normal in contour, the liver dullness reaches the costal border. The edge is not felt. The spleen is easily felt and has a hard, rounded edge. All reflexes are normal.

The right leg is stiff, held in extension. There is no swelling, redness or deformity. The knee can be flexed on the thigh without pain. All movements of the spine, hips, left knee, ankles are free and painless.

The urine is normal. The blood count is

normal. Differential count shows 43 per cent of polymorphonuclear cells; 4 per cent of eosinophiles; 2 per cent of basophiles; 43 per cent of mononuclears large and small; 8 per cent of endotheliocytes. The red cells are quite normal in appearance. The platelets are normal. There is no thymus enlargement. The W. R. is negative. Intradermal O. T. 1/10 mg. is also negative.

Microscopical study of sections of the lymph gland shows areas which have an endothelial lining, some hemorrhage into these spaces and a chronic inflammatory process.

Three days after he was first seen he used his knee quite naturally. What is the diagnosis? What treatment should be given?

In the next month's issue of this JOURNAL the differential diagnosis of this case will be discussed.

Discussion of Acute Otitis Media With Mastoiditis

BY ROY A. BARLOW, M.D.
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There seems to be a general belief, not only among the medical profession but the laity as well, that mastoiditis is the direct result of gross neglect in the treatment of acute otitis media. Just why and where this idea originated no one can rightly say, and its source will probably forever remain a mystery.

It is well known that in many cases of acute otitis media the drum ruptures spontaneously and the patient recovers completely without ever consulting a physician. On the other hand, the otologist observes patients who develop surgical mastoiditis in spite of the institution of every known preventive measure and the most minute attention. For example, although paracentesis should be done to give early drainage and relieve pain as soon as the drum shows bulging and redness, experience shows we cannot claim that it is a successful preventive to mastoiditis. Whether or not a patient develops this complication depends not on the institution of any particular therapeutic measures, but rather on the anatomical configuration of the temporal bone in the individual and the virulency of the infection as compared with the general resistance of the patient.

Let us consider for a moment the mechanics and progress of acute otitis media. The patient may have an acute "head cold," sinusitis, tonsillitis, or some other acute infection in the upper respiratory tract. The eustachian tube, due to its proximity to the infected region, is more or less involved and the infection travels up the tube and involves the middle ear. The infective process continues its development; pus and purulent exudate fill the cavity of the middle ear, bulging the drum and producing the classical symptoms of pain, fever, malaise, headache, and deafness. Thus is developed an acute otitis media.

Acute otitis media continues to cause severe pain until rupture of the drum allows the purulent material to exit into the external canal. If rupture has not already occurred when the physician first sees the patient, he promptly does a paracentesis of the tympanic membrane, thereby mechanically establishing drainage of the middle ear which greatly relieves the pain. The discharge at first is bloody, as in most cases the infecting organism is streptococcus. A few days later, however, it becomes more thickened as secondary infection with staphylococcus develops.

The ear may or may not be irrigated. Some otologists believe that irrigation should be done at once; some prefer to wait until the discharge becomes thickened; and others do not consider irrigation indicated at all. A number of patients recover completely under any of the above named procedures, while others develop surgical mastoiditis. Another school of therapists advocates ice bags, Leiter's coil, and so forth, and quotes statistics showing how their patients recover. In some of these cases, however, surgical measures are eventually necessary. Still another group advises heat, electric pads, and hot water bottles, and quotes an equal number of cures, but again there are a number of patients who require surgery. There is a final group of therapists who advocate neither heat nor cold, and they also report about the same number of patients who recover or require mastoidectomy. In other words, regardless of the type of case and attention given patients with otitis media, a certain percentage will develop a surgical mastoiditis.

Since the mastoid part of the temporal bone is a cellular, pneumatic structure made up of a myriad of small cells, an infection once established is not likely to resolve spontaneously. Years ago

Swartz advocated incising the scalp and chiseling on opening in the outer cortex to allow the escape of pus. This effected a cure in some cases but the convalescence was long drawn out and not always satisfactory. Since that time we have ventured more boldly into the temporal bone and opened into the antrum of the middle ear. This procedure is known as the simple mastoid operation as compared to radical mastoidectomy which is performed for the eradication of chronic mastoiditis.

A great deal has been written regarding the time and indication for performing a mastoidectomy. It is pretty well accepted that there can be no hard and fast rule. Each case is a law unto itself. The few cardinal points upon which we may base our judgment are persistent, profuse discharge from the ear together with drooping of the superior canal wall. Mastoid tenderness on deep pressure is present in the majority of cases. The temperature may not be of any help whatever; the leucocyte count in many cases shows only slight increase, perhaps an increase in eosinophils. The middle ear deafness may be an aid as will also the subjective complaint of a heavy dull headache, usually in the side of the head involved and quite noticeable at night. With the many laboratory findings now at our command we are apt to overlook a very valuable point in the general appearance of the patient. The patient looks sick, and often the physician's realization of the toxic condition of the patient as he sees him without even looking at the chart, or as he feels the pulse, will be a criterion upon which he may rely without a qualm. There are cases in which all subjective symptoms disappear, but the discharge from the ear is profuse. This indicates progress of the infection, and operation should be performed to clear up the pathologic condition and conserve the hearing. It is, in the experience of most otologists, safe to advise mastoidectomy when the discharge is still profuse after two weeks. The setting of a definite time limit, however, is hazardous. After all, the question of whether or not mastoidectomy is indicated is a matter to be decided by the judgment of the surgeon after he has considered all the facts in a given case.

The most rational procedure is complete eradication of the infected tissue or curettement of the pneumatic structure of the bone, as the small trabeculae will tend to pocket off infection and delay healing. Especially should the cells lying over the knee of the sigmoid sinus be opened. The tip should be well cleaned even up to the pneumatic structure of the posterior root of the zygoma. In fact, for a thorough and complete eradication of infection, the mastoid part of the temporal bone should be rendered as free from trabeculae as possible. We then see a smooth, clean bone wherein no small center of infection may develop. It may seem surprising to state that extensive as this surgical attack appears, healing usually is complete in an average of twenty-nine days.

The opening into the antrum or middle ear should be of sufficient size to facilitate ample drainage. During operation the dura over the lateral or sigmoid sinus may be uncovered; if so, the procedure should include more extensive uncovering until healthy dura is seen. This will allow the operator to ascertain whether or not the sinus shows evidence of thrombosis.

The cavity is washed out with a tepid saline solution and wiped dry. A small iodoform or plain pack is loosely inserted from the antrum to the lower margin of the wound. The final procedure is a paracentesis of the drum, even though it has been draining well. This insures ample two-way drainage in conjunction with the mastoid opening.

The wound closure includes the approximation of the skin and periosteum, thus giving a broad surface in apposition for healing and reducing the amount of deformity and scar. Two or three silkworm gut sutures in the upper part of the wound are sufficient; the lower third is not united so that drainage is facilitated from the most dependent part. If the canal wall has been drooping, a small gauze wick inserted against the drum will aid in drainage and tend to hold the canal wall up against the bone. A soft, dry, fluff or gauze dressing and mastoid bandage completes the procedure.

By this method the pathologic process is completely eradicated and nothing is left to nature except the healing of the area. The pack is removed in twenty-four hours from both the ear and mastoid, and a small wick is again inserted high in the mastoid and forward to the antrum. At the time of dressing, inspection is carried out by aid of a nasal speculum and ample view is obtained. The extent of the dressings is guided by the progress of the case. There is a tendency to

overtreat patients during the postoperative phase.

In recent years we have come to realize that as long as pneumatic structures exist, there is apt to be a certain amount of dormant infection ready to flare up, or at least prolong the convalescence unnecessarily. The patient must not only recuperate from the trauma incident to the operation but he is also burdened with the task of overcoming small islands of infection.

The operation here described is more than a so-called simple mastoidectomy; it is a complete, but not a radical operation. The term simple mastoidectomy is misleading in that it implies that the procedure is of a trivial nature. The patient and relations may believe that there is no danger and as convalescence may be somewhat prolonged, they may become disgruntled. Then, too, the word simple is in no way descriptive of the operative procedure, as it indicates that a simple opening is made into the mastoid for drainage. The operation just described and recognized in most medical circles consists in complete eradication of the mastoid trabeculae, and should in no way be confused or compared with radical mastoidectomy, which is instituted in chronic otitis media.

The pathology of mastoiditis is essentially the same as that of an acute osteomyelitis and osteitis, and the rules governing its treatment are practically identical with those for osteomyelitis in any trabeculated bone. The process starts with infection in the middle ear involving the mucous membrane lining of the aditus ad antrum, followed or associated with hyperemia, swelling of soft tissue, and serous and bloody exudate. This becomes infected and is broken down by necrosis of the bone cells so that there is one large cavity filled with pus and the outlying cells are filled with plastic exudate and broken down tissue.

CONCLUSIONS

1. Paracentesis is not infallible as a preventive for mastoiditis.

2. Virulence of infection, anatomical configuration of the temporal bone, and general resistance of the patient are determinating factors in the development of mastoiditis.

3. No rule can be set as to the necessity of operation, as each case is a law in itself. Common sense and judgment are more important in deciding this matter than laboratory data.

4. If the mastoid is to be operated on, the infected bone should be thoroughly cleaned. Small cells or pockets must not be left to harbor infection.

5. A loose postoperative pack is as effective as a tight pack.

6. A better scar will result when the upper part of the wound is closed and only the lower portion left open for drainage.

Abstract of Papers Before University of Wisconsin Medical Society

C. D. LEAKE, EDITOR

PROLONGATION OF LOCAL ANESTHESIA

BY G. DE TAKATS, M.D.
Associate Professor of Surgery, University of Budapest

The most outstanding need in the field of local anesthesia has been the necessity of finding some local anesthetic agent whose action would be so prolonged as to relieve post-operative pain until the process of healing has gotten under way. The studies of Morgenroth of Berlin on certain quinine derivatives led to the preparation of isoamylhydrocuprein. This substance has been marketed under the name "Eucupin."

It was found in anesthetizing the cornea of the rabbit's eye that 0.1 per cent of this drug gave the same duration of anesthesia as a two per cent solution of cocaine. Infiltration studies were made by the author with this compound. This substance does not possess the anesthetizing powers of cocaine or novocaine, but when added to a solution of novocaine it very greatly prolongs the duration of the anesthesia obtained by this drug. Eucupin is relatively non-toxic; it is soluble to the extent of 33 per cent and it is non-irritant to tissue when used in weak solutions. Due to the fact that novocaine could not be obtained in Hungary during the war period, tutocaine was employed.

The following conclusions were reached as a result of the study:

1. A combination of 0.5 per cent tutocaine with 0.1 per cent solution of eucupin and the usual dose of adrenalin causes a post-operative analgesia around 24 hours.

2. This combination of drugs is soluble in water, can be sterilized, does not counteract adrenalin, and is not toxic in the given quantities. It does not cause any tissue reaction or any disturbance in wound healing, as shown by intracutaneous

tests, microscopic sections, and 100 operations performed with this solution.

3. An anesthesia of longer than 24 hours duration is not considered desirable because of possible trophic troubles. The advantages of a whole day anesthesia after the operation are evident. Subjective ease of the patient, no unnecessary medication, and avoidance of various postoperative troubles are the result.

4. With eucupin a powerful antiseptic is added to our solution and by that the sterility of the injected fluid and of the operative field is augmented.

This interesting and valuable paper of Dr. De Takats was discussed by Dr. C. A. Hedblom who pointed out the great advantage of prolonged local anesthesia in thoracic surgery when pain incident to coughing would very often interfere with the desired clinical results. The paper was also discussed by Dr. C. D. Leake. Nov., 1925.

SUMMARY OF GASTRIC AND DUODENAL ULCERS

BY G. DE TAKATS, M.D.

Associate Professor of Surgery, University of Budapest

A summary was given of 1,245 gastric operations performed between 1914 and 1924 at the University of Budapest. The point of interest is that radical resection has been found to give far better clinical results with practically the same mortality rate as gastro-entero-anastomosis. With gastro-entero-anastomosis, the mortality rate was 5.8 per cent with only 50 per cent showing good late results. With the radical resection, in a comparable number of cases, the mortality rate was 5.4 per cent and 84 per cent showing good late results. The type of resection practiced removed, as a rule, the lower two-thirds of the stomach. The success of the operation depended to a great extent upon the teamwork developed by the surgeons and their assistants and by the employment of a specially devised stitching machine which shortened greatly the duration of the operation.

In the discussion which followed, Dr. C. A. Hedblom pointed out that gastro-entero-anastomosis was still the more popular method of treating gastric and duodenal ulcers in this country although great interest had been aroused in the results obtained by the radical resection. It was pointed out that the difference in living conditions in this country and in Europe probably was a factor in explaining the greater success of the Europeans with resection. The paper was also discussed by Dr. Jerome Head. Nov., 1925.

EXPERIMENTAL RELAXATION OF THE PUBIC SYMPHYSIS

BY PROFESSOR F. L. HISAW, Ph.D.

Department of Zoology, University of Wisconsin

It is possible to produce ligamentous relaxation and an increase of connective tissue at the symphysis pubis and iliosacral region of virgin guinea pigs by subcutaneous injections of whole blood serum from rabbits in late pregnancy. This reaction is obtained most easily at the time of oestrum in the virgin guinea pig. In the effort to ascertain the factors involved in this reaction, it was found that the injection of liquor folliculi during the period that a functional corpus luteum is present in the ovary would bring about the relaxation. If a functional corpus luteum is not present in the ovary, liquor folliculi is without effect, although artificial oestrum may be produced by this means. The oestrous cycle in these animals can be easily followed by means of vaginal smears stained with methylene blue.

The relaxation of the pubic symphysis in the virgin guinea pig seems to be brought about by an increase in the connective tissue pad at the symphysis. Whole blood serum from normal rabbits, from rabbits in early pregnancy, or from rabbits after parturition does not produce the relaxation, nor does extract of fetus nor amniotic liquor. The relaxation may be secured within 12 hours after the injection of 2 c.c. of whole blood serum from a rabbit late in pregnancy.

Dr. Hisaw's paper was discussed by Dr. E. F. Schneiders who pointed out the possible medico-legal importance of the relaxation of the symphysis pubis in women. Dr. Schneiders pointed out that obstetricians customarily make use of the normal relaxation of the female pelvis which occurs at the time of parturition. He also stated that in certain women, this relaxation did not occur and, hence, difficulties were encountered in labor. The practical application of Professor Hisaw's work to this type of case remained for the future to determine. Dec., 1925.

CHOLECYSTOGRAPHY

BY R. C. BLANKINSHIP, M.D.

Associate Professor of Clinical Medicine
University of Wisconsin

The introduction by Graham and Cole in 1924 of calcium tetrabromphenolphthalein for the diag-

nosis of gall bladder disease marked a great step forward in this field. Calcium tetrabromphenolphthalein required large amounts of water and this fact led to the sodium salt being substituted for the calcium. Later the sodium salt of tetraiodphenolphthalein was used since only one-half as much of this drug as of the corresponding bromine compound was necessary for the purpose of casting the same shadow and the toxicity of the two was about equal. These substances seem to be excreted entirely by the liver and appear in the gall bladder, casting a shadow in roentgenograms. The roentgenograms should be taken at the 4th, 12th, 24th, and 48th hour after the administration of the drug. In the normal response, a faint shadow should be seen at the 4th hour with the maximum at the 12th, a faint shadow at the 24th, and nothing at the 48th. It is important to emphasize the significance of delayed emptying of the gall bladder. This seems to be indicative of functional gall bladder disease.

In practice, 3 to 3.5 grams of the sodium salt of tetraiodphenolphthalein are placed in 28 c.c. of water, sterilized by boiling, and injected intravenously in divided doses at 8:00 and 8:30 in the morning. Great care must be given to avoid local injury at the point of injection. Symptoms of shock may follow the injection. It has also been found possible to administer the drug in coated or formalin hardened capsules by mouth. In this case, 5 grams are administered the evening before the roentgenograms are to be taken. Absorption may not take place after the oral administration. If a negative series of pictures result from oral administration, intravenous administration may be necessary.

In 67 recent cases, in which this diagnostic procedure was used at the Wisconsin General Hospital, it gave positive findings in 80 per cent of the cases which were operated upon.

In the discussion of this paper by Dr. W. S. Middleton, it was pointed out that this test offered an objective method of diagnostic aid in cases where diagnosis was extremely difficult. In the case where the test is negative, a liver function test should also be made in order to ascertain whether or not the dye is being excreted by the liver. There is apparently a 10 to 15 per cent error in diagnosis by this test. Dec., 1925.

GASTRIC ULCER AND ITS RELATION TO CANCER OF THE STOMACH

BY W. C. McCARTY, M.D.
Mayo Clinic, Rochester, Minnesota

The problem of the relationship between gastric ulcer and gastric carcinoma may never be finally settled until the actual experimental production of carcinoma from ulcer may be demonstrated. Certain practical considerations, however, are significant in this connection and may result in a great increase in the post-operative expectation of life of patients suffering from what is ordinarily diagnosed as gastric ulcer. By careful measurement of the size of the nuclei and cell bodies of the columnar cells lining the tubules of the gastric glands, it has been found that these cells in gastric ulcers tend to approximate the size and shape of those customarily encountered in carcinoma. When the normally high columnar cells of the gastric tubules are found to be spheroidal or round, either completely within the tubules or beginning to grow into the tissue beyond the tubule, the future development of cancer may be expected and the ulcer in which these cells may be found should be completely resected.

As a practical proposition, it has been found that whenever a chronic gastric ulcer comes to operation, complete resection of the ulcerative tissue is found to increase the post-operative life of the patient beyond that found when mere excision is performed. It is impossible, of course, to know how many patients with gastric ulcer will actually develop cancer of the stomach, but consideration for the future welfare of the patient indicates that resection for ulcer should be more commonly practiced.

In discussing this paper, Dr. C. A. Hedblom pointed out that the operative procedure, as far as exploration is concerned, is the same both for ulcer and carcinoma of the stomach. Whether the thesis that there is a direct relation between gastric ulcer and carcinoma is correct or not, the so-called medical or expectant treatment of ulcer would seem to be denying a patient the proper expectation of longer life which may be secured by a radical operation. The possibility of carcinoma must always be considered when symptoms of ulcer are found, since clinically these symptoms are very similar. Dr. McCarty's paper was also discussed by Dr. Jerome Head. In closing, Dr. McCarty urged extreme care in the writing or preparation of medical papers to quote other workers correctly. Dec., 1925.

THE WISCONSIN MEDICAL JOURNAL
OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

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Volume XXV February, 1926 No. 8

SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 558 Jefferson Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Inquiries.* Any inquiry with reference to pharmaceuticals, surgical instruments or any other manufactured product which you may need in home, office, sanitarium or hospital, will be promptly answered. Address all inquiries to Wisconsin Medical Journal, or write direct to Cooperative Medical Advertising Bureau, 535 North Dearborn Street, Chicago, Illinois. The Bureau is equipped with catalogues and price lists and can supply information by return mail.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

MEDICAL WRITING

THE Editorial Board of this Journal not infrequently has received papers submitted for publication that were excellent from the point of view of scientific work accomplished, but poor from the point of presentation. The Board is anxious to receive and publish papers from Wisconsin. We believe that many more can be published if more pains are taken to write the papers in a concise and lucid style.

Realizing that medical writing is a distinctive field, the Board has purchased six copies of the excellent book on this subject by Drs. Simmons and Fishbein, published by the American Medical Association. The book is short and full of vital information. Copies will be loaned to members of the State Society without other cost than the return postage.

POPULAR MEDICAL EDUCATION

The following editorial is quoted from the Saturday Evening Post of January 30, 1926. While we can not agree that popular medical education through the press is the responsibility of individual physicians, we are in hearty accord with the statement that it is the responsibility of the profession.

This editorial appears just as this issue of our Journal goes to press and members of the State Medical Society of Wisconsin may justly have a feeling of pride that their state organization is doing in a big way, and through many mediums, just what this editorial suggests. It is a coincidence that this editorial advocacy should appear in time to be included in this issue which contains the first report of our newly formed press service.—The Editor.

"GOOD NEWS SUPPRESSED

"The science of medicine, whether because of or in spite of its abundant store of Greek and Latin jawbreakers, is, as far as laymen are concerned, the most tongue-tied of all the learned professions. Clergymen can deliver their messages in words of one syllable to high and low alike. Lawyers, by skill of word and clarity of expression, can make juries of the most limited education comprehend the essentials of highly intricate cases. The doctors alone are the bondslaves of a vocabulary drawn from the dead languages.

"Our physicians, surgeons and health officers are fairly boiling over with important information which they desire to communicate to the general public; but somehow they lack the simple, racy English in which to get it over or the sense of form and accent which would make it interesting and attractive. This inability to write plain, understandable English, so readable in form and so accurate in statement that it is easy to make it accessible to large bodies of readers, is costing thousands upon thousands of American lives every year. Attention is called to this condition not as a matter of literary criticism, not as a reproach to the profession because it has produced so few Oliver Wendell Holmeses, S. Weir Mitchells and Sir William Oslers to enrich our general literature, but because it has a message to Garcia which it is not delivering.

"The tragedy of medicine and surgery today is the appalling amount of suffering, affliction and mortality which is definitely avoidable. The economic toll exacted by needless death and disability runs into the billions. Some of the life-insurance companies are making powerful and enlightened efforts toward mass education in the essentials of maintaining the body in health and vigor. The physicians, however, despite the best of intentions, are contributing far less effectually than they might to the cause of preventive medicine. Their zeal for scientific advancement knows no bounds, but they forget that much of their newly acquired knowledge must remain barren until it has become common property and its significance has been grasped and realized. Even the commonplaces of modern medicine have not been universally taught. Coughs are still neglected; eyes, ears, noses, throats and teeth which are obviously defective are allowed to go for years without proper inspection; lumpy formations are ignored in the vain hope that they will disappear; adenoid growths are tolerated and millions upon millions of us, from lack of expert advice, continue habitual diets which are little better than slow poisons. Indigestion, for the most part avoidable, has become our national disease.

"The brutalities which we unwittingly inflict upon our hearts, our kidneys, our lungs and our nervous systems only physicians fully realize. Periodical medical examinations are still the exception rather than the rule. The average man's living body is the bulk of his estate, and yet more often than not he allows it to go to rack and ruin until pain or disability which interferes with his work drives him to a doctor. As a result of all these conditions, fully twenty-five million of us are permanently sick; and so accustomed are we to being sick that we think ourselves well, and let it go at that until the day of reckoning arrives.

"Popular medical education cannot be achieved in a day, nor can it be accomplished by scattered outbursts of even the best-framed publicity in many days. The population of the country is too numerous and too widespread and the handicaps are too formidable to warrant any hope of the sort. Not the least of these handicaps is the attitude of the medical profession toward the lay press. For centuries physicians and surgeons have considered the lay press as common and unclean. There

was a day when the aloofness of the profession was justifiable; but it was at a time when it was a matter of small moment, for the excellent reason that the doctor had very little to tell his patients which they or their grandmothers did not already know.

"Today all that has changed. The enlightened physician has a great body of news of the highest importance to communicate to nonmedical readers. He is fully alive to the educative powers of the newspaper and periodical press, but he does not know how to use the mighty engine he has so long despised. He is unable to frame his warnings with such skill that he can have them printed; or having had them published, he cannot lure people into reading, digesting and heeding them. His love of long, accurate Greek and Latin words is his besetting sin, and his punishment is in witnessing the affliction which might have been avoided if he had been able to deliver his message interestingly in simple vernacular English.

"When the medical profession becomes more fully awake to its responsibilities in this field, it is to be hoped that it will perceive the gravity and importance of its problem and attack it in force over a nation-wide front. Some national body, such as the American Medical Association, which has made such a good start along these lines, ought to take up the matter in a big way and work out a comprehensive program which would unify the efforts of the agencies already in the field, and by cooperating with state and local boards of health, hospital clinics, community centers and county medical societies cover the lay press of the whole country. Local organizations should cultivate their own home papers and see that they are supplied with simply and attractively written reports of all transactions in which the public is immediately concerned. They should spare no pains to make them as readable as the effusions of the sporting editor, who has perhaps reported their meetings in the past, and as much more accurate as their technical knowledge will permit. Eminent specialists should be induced to continue and multiply the excellent health talks which have been broadcast by radio.

"The old-time prejudice against medical men writing on medical matters for the lay press should give way to a more enlightened code, and young physicians should be encouraged to take pen in hand with a view to bringing about a closer understanding between doctors and patients. The good which would follow would outweigh the evil.

"Any adequate nation-wide program of popular medical education such as is here contemplated would involve heavy outlays both of brains and of money; but its importance and its benefits, both social and economic, would be so stupendous that there is small reason to doubt that if the doctors would supply the brains the business world would find the money, and the newspaper publishers would furnish the white paper. There is no novelty in the basic idea. Many leaders of the medical profession have long had it in the back of their minds, but while it simmers there it does no good to suffering humanity. The time has come to convert good intentions into action."

WITH OTHER EDITORS*

Declaring that the subject of Physical Therapy "is one that has been neglected by the regular medical profession and is worthy of serious consideration," the editor of the Indiana State Medical Journal calls attention of readers to an article by Charles P. Emerson, Dean of the Indiana University School of Medicine. The editor says:

"It is quite true, as pointed out by Emerson, that the mere mention of physical therapy usually creates some antagonism in the minds of the medical men, for the reason that they feel that all activity has been taken over largely by poorly trained men who have profited greatly by it and have brought the subject into disrepute because they have made so many extravagant and unjustifiable claims concerning its virtues.

"That physical therapy has a distinct field of usefulness in the practice of medicine no one can doubt, and as Dr. Emerson well says, if physical therapy is valuable, or has any exclusive virtues in the treatment of disease, our profession faces a moral obligation to develop it. We cannot afford to allow others to do so since any therapy, however good, is safe only in the hands of those well enough trained in general medicine to use it. The concluding paragraph of Dr. Emerson's paper is worth repeating: 'No therapy is, because of any quality within itself, a quackery; all depends on the man who administers it. Even our most highly developed surgical operations though skillfully performed, become quackery if performed by a man who does not observe a right attitude towards his patient, even though he may be president of his local society. The great good which can be obtained in no other way than from physical therapy should be used for our patients and not exploited by the untrained. The boast of our profession is service; that, *we only,* can perform.' "

*Each month we shall print here what we deem to be a leading editorial chosen from those printed in other journals, particularly the state medical journals.

CONGRESS ON INTERNAL MEDICINE

The Tenth Annual Congress on Internal Medicine will be held at Detroit and Ann Arbor, week of February 22-27, 1926.

All physicians, who are interested in internal medicine and who are members in good standing of their local and national societies are cordially invited.

Hotel headquarters will be at the Book-Cadillac in Detroit. Information regarding reduced railroad rates, program, hotel accommodations, etc., may be secured from the Secretary-General, Frank Smithies, M.D., 920 N. Michigan Avenue, Chicago, Ill.

THE PRESIDENT'S PAGE

Joseph F. Saint

THE STATE MEDICAL SOCIETY

The State Medical Society consists of **yourself** and a few more than two thousand other fellows more or less like you. Each member has certain individual or peculiar points of contact which connect him with the organization but each and all have certain definite interests in common to which the state society gives form and expression. The State Medical Society is the only organization which can bring together all the interests of its individual members and furnish a point of contact between the members of the medical profession and the public it seeks to serve.

The officers of the society are elected for short terms of office. They come and go, each in turn playing his individual part in promoting the work of the organization. Their services are given without compensation, often at considerable personal expenditure of time and money.

The one officer of the society who goes on day by day and year by year thinking constantly of the society's interests and endeavoring to carry out measures for its betterment is our Executive Secretary, Mr. J. G. Crownhart. His entire time and thought are constantly devoted to promoting the society's welfare.

The fact that several other states have followed Wisconsin's lead in employing a lay secretary is a definite indication that the application of business methods to the management of the society's affairs is becoming a recognized procedure.

The officers and the Secretary are anxious to serve the individual members in every way possible. You can demonstrate your interest in the society's welfare by assisting the officers in carrying on the society's work. The State Medical Society is the organization which should assume leadership in medical matters. It should ever be on the alert to acquire whatever is of proven value in medicine and to give the public the benefit of this knowledge. By assuming and maintaining leadership in medical matters, the profession should seek to secure the confidence of the public in all matters affecting the health of the individual and the public.

THE STATE MEDICAL SOCIETY OF WISCONSIN

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Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
American Medical Association	Olin West, Chicago	Dallas, April 19-22
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis	Madison, March 13-14
Medical Examiners	R. E. Flynn, La Crosse	Milwaukee, April 14
Milwaukee County Medical Society	E. L. Tharinger	Pfister Hotel, 8:15, Feb. 12; Mar. 12
Milwaukee Academy of Medicine	D. E. W. Wenstrand	558 Jefferson, 8:15, Feb. 23; Mar. 9 and 23
Milwaukee Neuro-Psychiatric Society	J. F. Wenn	Athletic Club, 6:30, Feb. 25
Milwaukee Oto-Ophthalmic Society	Edward Ryan	Univ. Club, 6:30, Feb. 16; March 16

BROWN-KEWAUNEE

The first meeting of the Brown-Kewaunee County Medical Society for 1926 was held on January 5th, following a dinner at the Beaumont Hotel. Dr. Herman Hendrickson presented a paper on "Angina Pectoris," which was followed by discussion. Program material for the coming year was also discussed and an invitation was read from the Outagamie County Society inviting the Green Bay physicians to meet with them. "Ladies' night" will be observed at the February meeting of the society.—F. M. H.

COLUMBIA

The Columbia County Medical Society held their annual banquet followed by election of officers at Hotel Emder, Portage, on January 14th. The following officers were elected: President, Dr. H. F. Schmeling, Columbus; Vice-President, Dr. C. W. Henney, Portage; Secretary and Treasurer, Dr. H. E. Gillette, Pardeeville; Trustees, Drs. W. A. Taylor, A. J. Batty and C. W. Henney, all of Portage. It was decided to hold the next medical meeting in Columbus at which time a clinic will be given.—H. E. G.

DANE

The members of the Dane County Medical Society met in the rooms of the Association of Commerce, Madison, on January 20th. Dr. C. K. Schubert gave a paper on "A New Modification of the Perimeter." Dr. Paul Clark spoke on "Bacteriophage Against Hemolytic Streptococcus."—R. B. M.

FOND DU LAC

Dr. D. V. Meiklejohn of Fond du Lac was the speaker of the evening at the dinner-meeting of the Fond du Lac County Medical Society. The subject of his paper was "Ear Infections" and a general discussion of the paper followed. There was a large attendance at the meeting which was held at the Hotel Retlaw.—D. N. W.

LA CROSSE

The members of the La Crosse County Medical Society met at the Lutheran Hospital on January 13th. Dr. C. R. Bardeen, Dean of the Medical School at the University of Wisconsin, gave the address of the evening.—E. T. E.

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society met Thursday evening, January 14th, at the Old English Grill, Marinette. Dr. H. F. Schroeder presented a paper on "Lues," and Dr. M. D. Bird submitted a paper on "Neisserian Infection." There were seventeen present at the meeting and on the whole, there is much enthusiasm among the members of this society.—M.D.B.

MILWAUKEE

Dr. John P. Koehler, commissioner of health for the city of Milwaukee, spoke before the members of the Milwaukee County Medical Society at the Hotel Pfister, January 8th, on "The Milk Supply of Milwaukee." Dr. E. C. Rosenow, Mayo Clinic, Rochester, Minn., discussed "Poliomyelitis" from the standpoint of bacteriology, its clinical and laboratory diagnosis, and its treatment in the early stages with the serum which he has developed.

Before the set papers of the program were given, Mr. J. G. Crownhart, State Secretary, spoke on an important subject of interest to all members.—E. L. T.

OUTAGAMIE

Dr. Joseph Brennemann of Chicago was the speaker at the meeting of the Outagamie County Medical Society, January 6th, at the Hotel Northern. A banquet was served at 6:30 to about forty-five physicians. Dr. Brennemann is a specialist in diseases of children and talked on the diagnosis and treatment of conditions in chest and abdomen of the child. Dr. M. J. Sandborn presented stereopticon pictures on x-ray diagnosis. About twenty nurses attending the Sixth District convention of nurses were in attendance.—E. L. B.

ROCK

At a meeting of the Rock County Medical Society, held at Beloit, January 5th, the subject of milk was considered followed by a general discussion of plans whereby milk could be produced and delivered to the consumer in a much purer and cleaner condition than is practiced under the present system; also, the advisability of appointing a County Medical Milk Commission, whose duty it would be to conduct an educational campaign for clean milk, and make suggestions to the producer, thereby aiding him to produce cleaner milk. As milk is one of the most universal foods used by man, it was brought out that every physician ought to become

more universally interested in this food, not only for humanity's sake alone but to give every assistance possible to keep up the reputation of Wisconsin as the "Greatest Dairy State," thus enabling our dairy products to bring the highest price made possible by being produced from a high quality product.

All this can be brought about by education and the State Bureau of Markets grading Wisconsin milk for any producer who wants to make a pure clean milk and give it the seal of the state which stands for a product of quality.

Therefore, be it resolved, that we, the members of the Rock County Medical Society, assembled, do hereby ask the councilors of the State Medical Society of Wisconsin to make this campaign for clean milk a statewide affair by publishing articles in the state journal and having every county medical society take up this question of producing clean milk, also by appointing Medical Milk Commissions in every county to assist in the project.

The annual election of officers resulted in the following: Dr. E. B. Brown, Beloit, president; Dr. W. H. McGuire, Janesville, vice-president; Dr. G. K. Wooll, Janesville, secretary-treasurer.—G. K. W.

RUSK

The annual meeting of the Rusk County Medical Society was held Saturday, January 9th, at St. Mary's Hospital, Ladysmith, The officers selected for 1926 were: President, Dr. L. M. Lundmark; Vice-President, Dr. Woodruff Smith; Secretary-Treasurer, Dr. H. C. Johnson; Delegate, Dr. W. F. O'Connor; Alternate, Dr. H. C. Johnson; Censors: one year, Dr. Caldwell; two years, Dr. Baker, and three years, Dr. O'Connor.

Dr. L. M. Lundmark read a paper on "Myelogenous Leukemia" with presentation of a case. An autopsy report of "Rupture of an Intra Hepatic Bile Duct" was presented by Dr. Smith. Both papers were discussed generally by the members present. Dr. Johnson was appointed to act as program committee and it was voted that bi-monthly meetings be held.—H. C. J.

SHAWANO

At the last meeting of the Shawano County Medical Society Dr. A. J. Gates, Tigerton, was elected president of the society, Dr. R. E. Van Schaick, Marion, vice-president, and Dr. C. E. Stubenvoll of Shawano, secretary-treasurer. Dr. Gates was also reelected delegate.

—R. C. C.

SHEBOYGAN

The first meeting of the year of the Sheboygan County Medical Society was held on January 5th in the Assembly Room of the City Hall. Dr. Louis M. Warfield, Milwaukee, addressed the members on "The Heart as of Interest to the General Practitioner."—H. C.

WAUKESHA

The regular meeting of the Waukesha County Medical Society was held at the Spa at Waukesha on January 6th. Dr. C. C. Edmondson gave a very interesting and comprehensive talk on "Kidney Conditions" which brought a good discussion. Following the literary program the physicians enjoyed a dinner in the Spa dining room with Dr. W. E. Nicely as host.

The February meeting of the society was held in the home of Dr. J. H. Overbaugh of Hartland. The district councilor, Dr. A. W. Rogers of Oconomowoc, addressed the members.—S. B. A.

WINNEBAGO

At the annual meeting of the Winnebago County Medical Society the following officers were elected: Dr. S. D. Greenwood, Neenah, president; Dr. G. A. Steele, Oshkosh, vice-president; Dr. R. H. Bitter, Oshkosh, secretary-treasurer; Dr. G. V. Lynch, Oshkosh, censor; Dr. J. W. Lockhart, Oshkosh, delegate and Dr. S. D. Greenwood, Neenah, alternate.—R. H. B.

GREEN BAY ACADEMY OF MEDICINE

Dr. F. J. Gosin, Green Bay, was the speaker of the evening at the January meeting of the Green Bay Academy of Medicine, which was held on the 13th at St. Mary's Hospital. Dr. Gosin presented a paper on "Diseases of the Skin" and Drs. W. H. Bartran and R. M. Carter opened the discussion.—E. G. N.

MILWAUKEE ACADEMY OF MEDICINE

The Milwaukee Academy of Medicine met on January 26th at the Health Service Building. Dr. M. G. Peterman of the Milwaukee Children's Hospital spoke on "Convulsions of Infancy and Childhood" and Dr. Francis D. Murphy presented a paper on "Nephrosis, with Report of Several Cases." The sum of $47,000 has been subscribed to date by eighty members of the Academy toward the bond issue for their new home in the Chandler Building.—D. E. W. W.

MILWAUKEE NEURO-PSYCHIATRIC

The members of the Milwaukee Neuro-Psychiatric Society met at the Library of the Milwaukee Academy of Medicine, Colby Abbott Building, on Thursday, January 28th, at 8:15 p. m. Dr. Benjamin B. Rowley presented a paper on "Anatomy, Physiology and Clinical Syndromes of the Basal Ganglia." Dr. Stanley J. Seeger, president of the Milwaukee County Medical Society, gave a paper on "Some Impressions of Neurologic Surgery in London."—W. T. K.

MILWAUKEE OTO-OPHTHALMIC

The annual meeting of the Milwaukee Oto-Ophthalmic Society was held on January 19th following a dinner at the University Club. The following scientific program was presented: Dr. N. B. Black and Dr. H. Haessler, "A Case of Epitheliosis of Cornea, Cleared up with the use of Shahan Thermophore;" Dr. Edward Ryan, "The Anatomy of the Cornea;" Dr. J. Marks, "A Case Report of Tuberculosis of the Cornea;" Dr. E. L. Miloslavich gave a lecture on "Rhino Laryngological Pathology," illustrated with lantern slides. The president, Dr. John Guy, announced as members of the Legislative Committee: Dr. N. M. Black as representative and Dr. G. Seaman as alternate. The election of officers resulted in the following: President, Dr. C. J. Coffey; Vice-President, Dr. J. J. Brook; Secretary-Treasurer,

Dr. Edward Ryan, and Council: Drs. Coffey, Guy and Tolan.

The next meeting of the society will be held in Madison on February 16th when Dr. Roy A. Barlow will present a paper on "Sinus Disease in Children."

—J. J. B.

NEWS ITEMS AND PERSONALS

Dr. B. H. Hager, who has been Associate Professor of Surgery and head of the Department of Urology at the University of Wisconsin since establishment of the Wisconsin State General Hospital, has resigned his position to become a member of the permanent staff in Urology at the Mayo Clinic, Rochester, Minn.

Dr. Karl Schlaepfer has opened offices at 4042 Plankinton Building, Milwaukee, and will limit his practice to surgery. For the past two years Dr. Schlaepfer has been doing experimental surgery and instructing in pathology at the Yale School of Medicine in New Haven. Previous to this, he was Associate in Surgery at the Johns Hopkins Medical School for two years, following a long experience in the surgical clinics of Leipzig, Vienna and Zürich.

Dr. M. A. Cunningham was elected president of the staff at Mercy Hospital, Janesville, at the annual meeting on January 7th. Dr. F. R. Lintleman was chosen vice-president and Dr. G. S. Metcalf was re-elected secretary-treasurer. Members of the executive board are: Dr. Wayne A. Munn, chairman; Drs. W. H. Palmer, F. W. VanKirk, Fred B. Welch, T. W. Nuzum, M. A. Cunningham and G. S. Metcalf.

The village of Butternut, without a physician since October when Dr. J. D. Leahy established his practice at Park Falls, has again a resident physician in Dr. William Kirston. Dr. Kirston was a graduate from Marquette Medical School in 1922, served his internship at the Detroit Hospital and was in private practice in Milwaukee for two years.

Dr. P. A. Fox was elected president of the Beloit Physicians' and Surgeons' Club at its luncheon and annual meeting on January 7th. Dr. W. G. Melaas was elected vice-president and Dr. L. M. Field was re-elected secretary-treasurer. Dr. W. H. Hecker was appointed sergeant at arms.

Dr. Frederick Heidner of West Bend has become affiliated with Dr. Edward Quick, Wells Building, Milwaukee. Dr. Heidner was graduated from Rush Medical College, Chicago, in June, 1924. Since then he has served as intern at the St. Paul City and County Hospital, St. Paul, Minn., and the Augustana Hospital, Chicago.

Dr. A. J. Pullen of Fond du Lac has again received the appointment of medical examiner in Fond du Lac County for candidates for the Citizens' Military Training Camp of the Sixth Corps area. This is the third year Capt. Pullen has been appointed to the post. In addition to being medical examiner for the citizens' camp, Capt. Pullen is the only air flight surgeon of the Army Reserve Corps in Wisconsin.

One hundred fifty members of the Society of American Bacteriologists, coming from schools and health departments in all parts of the United States and meeting in annual session at Madison recently, were feted with an "all Wisconsin" dinner while there.

The dinner was given by local bacteriologists connected with the University of Wisconsin and the state health department. According to W. H. Wright, member of the agricultural bacteriology faculty at the University, food produced in Wisconsin and prepared under bacteriological control, made up the menu. This included northern Wisconsin select potatoes; Wisconsin No. 3 sweet variety, inoculated peas; disease-resistant Wisconsin Hollander cabbage salad; Wisconsin pasteurized ripened cream butter; Wisconsin sprayed Greening apple pie; Wisconsin brands of Swiss, Cheddar and brick cheese, bacteriologically controlled; and Brook Hill certified and acidophilus milk, also bacteriologically controlled, from Waukesha County. A smoker, with cigars wrapped in Wisconsin binders, followed the dinner.

Dr. John A. Junck, who has been affiliated with the Sheboygan Clinic since its foundation, has severed his connection and will resume his private practice.

A 5,000 year-old Chinese drug is now being studied by KoKuen Chen, a research student and pharmacologist of the University, in the hope of discovering new uses for it among the medical profession. The drug, ephedrine, was called "Ma Huang" by the ancient Chinese. One of its active constituents has been found useful in treating asthma, congestion in the nose, and hypotension. While teaching pharmacology at the Pekin Union Medical College, Mr. Chen put the drug to various tests. Attempts to use it have also been made at the University of Pennsylvania Hospital, at the Mayo Clinic of Rochester, Minn., and at the Wisconsin General Hospital.

Five liquor licenses belonging to Racine physicians were revoked recently by E. C. Yellowley, prohibition director. The reason given for revocation of permits was "violation of regulations."

Dr. Walter M. Kearns has announced the opening of offices at 1100-1101 Straus Building, 230 Grand Avenue, Milwaukee. Dr. Kearns' practice is limited to urology.

Dr. J. E. Forestier, of Paris, spoke on "Practical Results of X-ray Examinations with Injections of Iodized Oils" before the regular monthly meeting of the University of Wisconsin Medical Society at Science Hall.

Dr. Forestier was awarded distinguished honors at a recent meeting of the American Roentgenological Association at Cleveland. The doctor has been touring the United States in order to report his studies.

Dr. Louis M. Pearson, who for nineteen years has practiced medicine and surgery at Tomahawk, has become associated with Dr. A. W. Boslough of Wausau, who is an old classmate. Dr. Pearson's family will remain in their present home until fall when they will also move to Wausau.

Dr. O. E. Werner, Oshkosh, lost his appeal to the supreme court which affirmed his conviction and sentence for performing an illegal operation. The girl died as a result of the operation. Dr. Werner was sentenced to serve nine months in the house of correction and was ordered to serve another nine months because of a failure to pay a $500 fine.

Dr. Albert S. Crawford has resigned his position as Associate Professor of Surgery of the Wisconsin University College of Medicine, and Neuro-surgeon of the State of Wisconsin General Hospital, and has accepted a position as Neuro-surgeon at the Henry Ford Hospital, Detroit, Michigan. He will assume his new duties February 1st.

Dr. Ernest Copeland has presented his interest in the proprietorship of the Chandler Building, situated directly east of the Court House Annex on Oneida Street, to the Milwaukee Academy of Medicine. Dr. Copeland desires that building to serve as the permanent home of the Academy of Medicine and also that it shall contain the medical library of Milwaukee. The Academy this year will observe its fortieth anniversary and Dr. Copeland has been one of its staunch members for that many years.

Five physicians at the Soldiers' Home, West Allis, were charged with violations of military regulations which forbid private practice when employed on full time by the government. The physicians include: Drs. A. M. Dorr, G. R. Randall, F. C. Margoles, and W. A. Deerhake. Dr. Ralph H. Ware was dismissed on January 6th under similar circumstances. The doctors held officers' commissions.

The vacancies have been filled by: Dr. W. R. Hunt of the tuberculosis hospital; Dr. Layton T. Cox, Dr. Homer L. Barker, Dayton, Ohio; Dr. Fred I. Yates, Leavenworth, Kans., and Dr. G. L. Prentice, Danville, Ill.

On the evening of January 21st the Shriners of La Crosse enjoyed a big moose dinner at the Masonic Temple. Dr. W. A. Jones, who recently returned from a hunting trip in the Canadian woods, furnished the moose for the banquet.

The building project for the University of Wisconsin Medical School is reaching a definite stage with the decision of the Board of Regents to have plans for the structure prepared. Arthur Peabody, state architect, has been instructed to draft plans for the field house and medical school building. The total cost of the medical school's building program has been estimated at $1,500,000.

"The Relation of the Medical Profession to the Public" was the subject of an address of exceptional interest delivered by Dr. F. Gregory Connell, Oshkosh, before the members of the Neenah Club at one of their weekly noon luncheons recently. The address treated in considerable detail the accomplishments of both the medical profession and the public in combating disease, raising health standards and especially in the control and elimination, to a large extent, of diseases.

Dr. I. E. Levitas was elected president of the staff of St. Mary's Hospital, Green Bay, at the annual staff meeting of the institution held recently. He succeeds Dr. George Senn, who held that office during 1925. Dr. R. L. Cowles was re-elected to the vice-presidency and Dr. A. J. McCarey was re-elected secretary. Drs. H. Hendrickson and W. W. Kelly were named as members of the hospital executive committee.

Dr. A. E. Rector of Appleton was recently elected president of the Riverview County Club at the annual meeting of members.

Dr. Roy C. Rodecker, Holcombe, was appointed to succeed Dr. C. W. Rodecker, resigned, to fill the unexpired term expiring July 1, 1927. Dr. Rodecker is secretary of the Wisconsin State Eclectic Medical Society.

Dr. Jerome R. Head, who has been an instructor in surgery at the University of Wisconsin and the State of Wisconsin General Hospital, has resigned his position to become a member of the surgical staff of the University of Illinois in Chicago. He will be associated with Dr. C. A. Hedblom who recently resigned as Professor of Surgery at the University of Wisconsin.

Dr. Head is the son of Dr. Louis R. Head. He graduated from the University of Wisconsin and took postgraduate work at the University of Illinois and received his degree from Harvard University.

The Racine County Medical Society will receive an annuity of $50.00 in perpetuity as result of a bequest of the late Dr. Walter S. Haven, Racine. Among other bequests of Dr. Haven's are annuities of $50.00 each to St. Mary's and St. Luke's Hospitals and an annuity of $500 to the scientific department of Beloit College.

Dr. Louis M. Warfield was elected by the board of trustees of the county institutions as head of the Milwaukee County Dispensary on January 25th. He succeeds Dr. John P. Koehler, who resigned to become city health commissioner of Milwaukee. Instead of being a full-time man at a salary of $6,000, Dr. Warfield will work on a part-time basis, and will receive $2,500 at the beginning and later $3,000.

The new head of the Dispensary was clinical director of the County Hospital for several years. He has been connected with the faculties of the medical schools of Marquette University and the University of Michigan.

MARRIAGES

Dr. C. Ray Nystrum, Medford, and Miss Irma Mechelke, Birnamwood, were married at Waukegan, Saturday, December 19th.

Dr. William P. Collins, Racine, and Miss Josephine Porstner, also of Racine, were united in marriage on January 4th. Dr. and Mrs. Collins left for Lakeland, Fla., where the doctor has spent several past winters.

DEATHS

Dr. Arnold Mueller, of McHenry, Ill., and former Manitowoc resident, died at Sheboygan on December 30th after a week's illness from scarlet fever. He was stricken while enroute to his home after a holiday visit. Dr. Mueller was born in Manitowoc on December 11, 1886 and was graduated from the Milwaukee Medical College in 1908. He is survived by his wife and a sister.

Dr. James C. Hobart, Birchwood, died at the Rice Lake Hospital on January 9th. Dr. Hobart had practiced at Birchwood since 1917. He is survived by his wife and several children.

Dr. W. G. Wheeler, Racine, died suddenly at his home Sunday morning, January 17th. Dr. Wheeler was born in Racine in 1857 and according to press announcement, was graduated from Rush Medical College in 1881. He had not been in good health for a number of years, having retired from active practice nearly fifteen years ago. Surviving him are his wife and three children.

Dr. William C. Karzke, Milwaukee, was found dead in his office on January 25th. He was born in 1881 and was graduated from the Wisconsin College of Physicians and Surgeons, Milwaukee, in 1907. He is survived by his wife and a sister.

SOCIETY RECORDS

NEW MEMBERS

Paul, Olin, Niagara.
Cook, E. H., Watertown.
Peterson, M. G., Lake Mills.
MacGregor, James W., Portage.
Carberry, Elmer A., Centuria.
Medley, S. R., Siren.
Slaney, J. G., Oshkosh.
Housley, H. W., Granton.
Domine, Anthony, Mendota.
Long, D. T., Whitehall.
Caldwell, H. M., Columbus.
Ketels, Christian, Appleton.
Miller, Russel H., Whitewater.
Meyer, R. C., Plymouth.
Dorszeski, E. F., Antigo.
Fields, Merton, Chippewa Falls.
Carr, W. P., Juneau.

CHANGES IN ADDRESS

Tierney, E. F., Baraboo, to Portage.

Pearson, L. M., Tomahawk, to Wausau.

Haessler, F. H., 220 Mason St., to Wells Bldg., Milwaukee.

Seaman, G. E., 220 Mason St., to Wells Bldg., Milwaukee.

Tolan, T. L., 220 Mason St., to Wells Bldg., Milwaukee.

CORRESPONDENCE

LIBRARY OPEN

Milwaukee, Wis., Jan. 25, 1926.

Mr. J. G. Crownhart, Secretary,
Wisconsin State Medical Society,
558 Jefferson Street,
Milwaukee, Wisconsin.

Dear Sir:

In answer to your question as to the availability of the Academy of Medicine Library, I wish to say that the library is open to any physician, layman or student during the library hours and always has been. I wish to add that only members of the Academy, however, are privileged to take out of the building the books and magazines belonging in the library, however all are welcome to go there and use them on the premises.

It is very possible that an announcement that this library is open for use, if this notice should appear in the Wisconsin Medical Journal, might result in stimulating the use of the library.

Yours very truly,
Eugene A. Smith, M.D.

LICENSED BY RECIPROCITY

La Crosse, Wis.

Mr. J. G. Crownhart,
558 Jefferson Street,
Milwaukee, Wisconsin.

Dear Mr. Crownhart:

Enclosed is a list of physicians licensed by reciprocity, also addresses of same.

Cordially yours,
Dr. Robt. E. Flynn, Secy.

Tipton, Dean Gerald, M.D., Winnebago, Wisconsin, reciprocated from Iowa.

Cutting, Lloyd David, M.D., Stevens Point, Wisconsin, reciprocated from Illinois.

Bowing, Irwin E., M.D., Kenosha, Wisconsin, reciprocated from Illinois.

Long, David Thomas, M.D., Whitehall, Wisconsin, reciprocated from Georgia.

Blak, Einar V., M.D., 494 Cass Street, Milwaukee, Wisconsin, reciprocated from Nebraska.

Reist, Paul Zug, M.D., Appleton, Wisconsin, reciprocated from Pennsylvania.

Keister, Bittle C., M.D., 1315 Fern St., Washington, D. C., Milwaukee, Wisconsin, reciprocated from Virginia.

Salan, Sam, M.D., Waupaca, Wisconsin, reciprocated from Indiana.

Schlaepfer, Karl, M.D., Hotel Rigi, 138 S. Clinton St., Chicago, Illinois, reciprocated from Maryland.

Tobias, Milton, M.D., 5307 Cuyler Ave., Chicago, Illinois, reciprocated from Illinois.

Miller, Newton, M.D., University of Utah, Salt Lake City, Utah, reciprocated from Utah.

ITINERANTS

Dr. Chas. A. Hoag, Chicago, Illinois.

Dr. Louis M. Turbin, Commercial National Bank Building, Madison, Wisconsin.

AN INTERESTING LETTER

159 Malcolm Ave., S.E.,
Minneapolis, Minn.
January 5, 1926.

Lieber George:

I have just completed reading The Life of Sir William Osler—two volumes with 1371 reading pages. Between times I have read again the book of Thomas Brown, a doctor of the seventeenth century. I was born and raised and was graduated from a medical college before the advent of scientific medicine. I have, therefore, seen and experienced more or less of both ends of the dilemma. In the civil war thousands died for want of scientific means. In no period of history has as good treatment or as successful results been obtained by medical resources as in the world war. We now live in a time of scientific endeavor and to one who has seen both, it looks so marvelous that the feeling comes back to the question, Are we as a profession doing the best that can be done for our patients?

The last session of the Wisconsin Medical Society gave in its program a complete exhibit of the change from say-so knowledge and the results of scientific work.

In the year 1886 Dr. Osler said that "there are two types of practitioners—the routinist and the rationalist—neither common in the pure form. Into the clutches of the demon routine the majority of us ultimately come. The mind, like the body, falls only too readily into the rut of oft-repeated experiences."

I heard, in 1867, a story told by Dr. E. H. Clark, professor of Materia Medica in Harvard University. He told of a visit made to a doctor in the country. He found him in his office putting up a lot of powders of epsom salts, preparatory to his round of visits. Dr. Clark said that he asked him why he was taking so many epsom salt powders with him. He replied that it was his epsom salts day and that on that day he gave them to all his patients.

To change the subject: I thank you very much for your kind reminder of the time for the meeting of the Council.

I would enjoy it if I could be there, but I have too much schnupf. My starboard antrum hymorianum is discharging too many of its unnecessary inhabitants to lead me to believe that I should visit the cold and drafty climate contiguous to the lake called Michigan. It is not troubling me much while I stay by the fire and so I think that I will stay by the fire.

Kindly give all the councilors my best "Happy New Year," and take the same yourself.

I will be glad to see what Dr. Sheldon will say about me in the Lay Issue. I hope that it will not be worse than anything that I have said about him, and he deserved it all. He is a grand old sport.

As ever, yours truly,

Sidney S. Hall.

SMOKING

Mr. J. G. Crownhart,
State Medical Society,
Milwaukee, Wis.

Dear Sir:

I wish to discontinue membership in both State and County Medical Societies.

There is so much smoking at the meetings that I am unable to attend them. Why should smoking be allowed at such meetings?

Very truly yours,

....., M.D.

ACADEMY MOVES MARCH FIRST

January 20th, 1926.

Mr. J. G. Crownhart, Secretary,
Wisconsin State Medical Society,
558 Jefferson St., Milwaukee, Wis.

Dear Mr. Crownhart:

Will you please serve notice on the profession through your columns that on and after the first of March, 1926, the Academy of Medicine meetings, library and reading rooms, will be moved to their permanent new home in the Oneida Building, 153 Oneida Street, second floor?

It may interest the members of the Academy to know that the library is to be housed in the fireproof building, and that complete new steel shelf equipment throughout has been ordered installed.

There is quite a large number of duplicate books on hand which may be seen and bought at a very low price on application at the Academy of Medicine Library. Many of these books are in first class condition and would be perfectly useful for doctors and students.

Yours very truly,

Eugene A. Smith, M.D.

EMORY TO RAISE FUND

Medical Association of Georgia,
65 Forrest Avenue,
Atlanta, Georgia,
Jan. 21, 1926.

Mr. J. G. Crownhart, Managing Editor,
Wisconsin Medical Journal,
Milwaukee, Wisc.

Dear Mr. Crownhart:

I'm calling on you for help! Emory University is raising an expansion fund, a large part of which will go to the Medical School.

Enclosed you will find a news item. If you feel that your Journal can donate space for this we will appreciate it and we will be glad to reciprocate with you at any time you can use space in our Journal.

Thanking you in advance for your kind consideration, I remain,

Sincerely yours,

Allen H. Bunce, Editor.

EMORY UNIVERSITY TO RAISE $4,500,000

Medical education is to receive a total of $4,500,000 from the $10,000,000 Expansion Fund now being raised by Emory University, Atlanta. This money will be distributed as follows: Endowment for the School of Medicine, $2,000,000; endowment for the Wesley Memorial Hospital, $2,000,000; Pathology Laboratory and Hospital Administration Building, $225,000; Nurses' Home, $200,000; completion of Chemistry Building, $75,000. The goal of the campaign as a whole is to provide $6,500,000 in endowment and

$3,500,000 in new buildings to cover the estimated needs of all six schools of the University for the next ten years.

The Emory School of Medicine, formerly the Atlanta Medical College, has long been one of the three largest and strongest A-grade medical colleges in the South. It has a total of 3,400 alumni now practicing in all states of the union but two. Dr. Russell H. Oppenheimer is dean of the faculty of 130 men, among the part-time members of which are some of Atlanta's most eminent physicians and surgeons.

For many years the School has been handicapped both in research and teaching work because of inadequate endowment. The enrollment in each class has been limited to sixty men at a time when more physicians of Georgia alone are dying each year than the two medical colleges of the state are graduating. The School is looking to its alumni and to the other friends of medical education to give the funds so urgently needed for expansion.

FROM NEBRASKA

"THE INCREASE IN MEMBERSHIP DUES

"Reference has several times been made in these pages to the increase in membership dues ordered by the House of Delegates at the last annual meeting of the Nebraska State Medical Association. The increase is effective January 1st, 1926, and is from $5.00—the present dues, to $8.00. The increase was brought about, because the delegates believed that more money was needed in order that the Association might function better.

"The Medical Defense Committee, which has done a great deal for the profession, was found to be short of funds to carry on the increasing amount of work piling up, due to increase in number of malpractice suits; the Publicity Committee, created several years ago, and from which much should be expected, has so far been unable to function properly for want of funds; the tendency of the times is toward centralizing the various activities of medical associations in an efficiency man,—a full-time paid executive secretary, editor and general manager, and many of those deeply interested in the activities and success of the Association, are looking forward to a time in the near future when money enough will be available to bring this about.

"A survey made recently, shows the dues of a number of state associations to be as follows: Indiana, Nevada, $7.00; Massachusetts, Utah, $8.00; Wisconsin, $9.00; Arizona, California, Rhode Island, Texas, Wyoming, $10.00; Alabama, $11.50; Oregon, District of Columbia, $20.00.

"There seems to be a general tendency toward increasing annual membership assessments so that the organization may function with greater efficiency.

"A recent communication from Dr. Olin West, secretary, American Medical Association, says:

In most cases, in so far as my observation goes, raising annual dues has resulted in increased activities and increased efficiency. This was notably so in Wisconsin, where the dues were raised from $4.00 to $9.00. The work of the State Medical Association of Wisconsin, was tremendously improved and extended, and I have been repeatedly told that never in the history of that organization has there been as much interest on the part of the individual members, nor as much real satisfaction over the work of the organization, as is now in evidence.

"The amount of increase is not large enough to quibble about and when we consider that the State Association concerns one's life-work, we may well, each and all, be cheerful givers."

—*Nebraska State Medical Journal*, Nov., 1925.

Dr. F. A. Long, Editor.

Council Outlines 1926 Program in Long Session; Special Committee Appointed On Periodic Health Examinations

With every councilor present, the Council of the State Medical Society of Wisconsin worked for eight hours on January tenth in one of the most important meetings of that body. Outstanding features of the meeting summarized are:

1. Received the announcement that Dr. E. Copeland of Milwaukee had offered his interest in the Chandler Building, Milwaukee, to the Academy of Medicine with the provision that should the Academy ever dissolve the interest should be presented to the State Medical Society.

2. Proposed a Health Conference to be held under auspices of the State Board of Health in 1927.

3. Established the position that medical organizations, as such should avoid, as a matter of principle, taking action on questions or candidates involved in partisan politics.

4. Declared its belief that paid advertising setting forth the merits of scientific medicine as opposed to quackery is not advisable.

5. Approved of the following dates for the 80th Annual Meeting to be held at Madison: Wednesday, Thursday and Friday, September 15th, 16th and 17th, next.

6. Established a special committee to take up the work of establishing policies in the field of the periodic examination of the apparently healthy persons.

7. After an hour and a half discussion, formed a special committee to present its conclusions on medical extension to the proper authorities.

The complete minutes of the meeting follow:

(Continued on next page.)

MINUTES OF THE COUNCIL MEETING

University Club, Milwaukee,

January 10, 1926.

The Council was called to order at 9:45 a. m. by Chairman Evans. The following were present: Councilors Dodd, Mitchell, Bock, Harper, Windesheim, Redelings, Smith, Rogers, Dearholt, Cunningham, Connell and Evans; Secretary Crownhart, Treasurer Sleyster, Deans Jermain and Bardeen, Dr. Carl Henry Davis (First Vice-President), Dr. Oscar Lotz (Chairman of the Editorial Board), Dr. Joseph P. McMahon (Chairman of the Committee on Cancer), Dr. Arthur J. Patek (Chairman of the Committee on Medical Defense), and Dr. J. Gurney Taylor (President State Board of Medical Examiners).

1. The secretary announced the first order of business to be the election of the Chairman of the Council for 1926. Dr. Smith nominated Dr. Edward Evans, La Crosse. The nomination was seconded by Dr. Redelings. No other nominations offered, it was moved by Dr. Mitchell that the nominations be closed and the secretary be instructed to cast a unanimous ballot for Dr. Evans. Seconded by Dr. Redelings and carried unanimously.

2. It was moved by Dr. Dearholt, seconded by Dr. Rogers, that Mr. J. G. Crownhart be elected executive secretary-managing editor for 1926. Carried.

3. It was moved by Dr. Smith, seconded by Dr. Windesheim, that Dr. Rock Sleyster be elected treasurer during 1926. Carried.

4. It was moved by Dr. Windesheim, seconded by Dr. Bock, that the minutes of the previous meetings as published in the Wisconsin Medical Journal for December, 1925, be approved. Carried.

5. Chairman Evans called on the Councilors for reports on their districts. The reports follow:

FIRST DISTRICT

I am pleased to report that the three counties of Waukesha, Dodge and Jefferson in my district are in excellent condition. There are but three or four physicians in the entire district who are not members of the medical society, and the membership dues are well paid up. The attendance throughout the year has been excellent. The one problem these societies have is to secure proper scientific material for the meetings. This problem has not been so great in Waukesha County, but the secretaries of the other counties both mention it in their reports.

I have suggested the advisability of each society appointing two or three members who will reciprocate once or twice a year with each other in the presentation of programs. This would help this want and bring new life and material into the societies and work also for greater friendliness among the participants.

Arthur W. Rogers, *Councilor.*

SECOND DISTRICT

The Second District appears to hold its own in regard to membership. A membership of one hundred and eight this year as compared to one hundred and nine last year, this loss of one will probably be made up by some of the delinquents, of which there are five, paying up their dues during the coming year, if they have not already done so. Considering that there were five removals and four deaths in the district, the condition appears to be very satisfactory to me.

In scientific work of the county societies, Racine County is taking the lead. This society holds a regular meeting bi-monthly devoted entirely to discussions of scientific subjects covering practically all phases of medical practice. In addition to these meetings of the County Society, the visiting staff of St. Mary's Hospital, including a large majority of the physicians in the county, holds four regular meetings during the year at which meetings also items of scientific interest are presented and discussed. At these meetings of the County Society and of the St. Mary's visiting staff, papers are presented by local men and by prominent outsiders. All of these meetings are well attended.

The Kenosha County Society held ten meetings during 1925. Most of these meetings were devoted to discussions on the so-called social and business aspects of the practice of medicine. At one meeting a talk was given by Dr. Carl Hedblom of the State General Hospital, on the "Surgical Aspect of Tuberculosis." The other meetings were taken up with discussions on such subjects as industrial and social medicine as it affects the general practitioner, and discussions tending to conduct a campaign against free medical treatment to other than charity cases, the restriction of free vaccination of school children by the Health Department, and criticism of the present activities of the Health Department, Service League, school examinations and child welfare clinics.

The staffs of the St. Catherine's Hospital and of the Kenosha Hospital hold monthly meetings at which case reports are presented and discussed. This seems to be the only scientific work that the medical profession in this county has done during the year.

Your Councilor has no report from Walworth County. Some years ago Walworth County was the banner county in the District, and at one time in the State. It is hoped that it is now on its way to regain that standing. On August 18th the Second District Medical Society held a meeting at Lake Geneva in Walworth County. Dr. W. P. Finney of the medical section of the Mayo clinic read a paper on "Phases in Diagnosis and Treatment of Duodenal Ulcer," illustrated by lantern slides which was very interesting and instructive.

Notwithstanding a personal invitation had been mailed by the Councilor to each member in the district, the meeting was not well attended owing to the fact perhaps that it was held at a time of the year when many of the physicians were away from home on a vacation and others had to stay at home to take care of their confrere's practice. At that meeting a committee was appointed to revise the constitution and by-laws of the Second District Society and report at the next meeting which will be held in Racine County, where, judging from previous meetings, a large attendance can be expected.

G. Windesheim, *Councilor.*

THIRD DISTRICT

In the Councilor District including Dane, Rock, Green, Sauk and Columbia Counties I find there is a good deal of variation in the number of meetings of the medical societies. Rock County and Dane County have both held practically monthly meetings during the year 1925 and had scientific programs, excellently attended. Much interest has been shown in all of these meetings.

In Green County I believe there was only one meeting held during the year of 1925. This was well attended and the program was scientific and instructive. In 1925 I attended the meeting as I did in 1924. The medical men seemed much interested, and when they do have a meeting it is a good one. Much benefit would be assured if more meetings of the Green County Medical Society could be held each year. The men there have a good spirit, but somehow they don't get together as often as they should. It may be that since this is a state line county there are a number of Illinois physicians coming into this county as consultants and regular physicians. This fact may have some bearing on the number of meetings of the Green County Society.

In Sauk County there were three meetings held last year, fairly well attended with good scientific programs. Vigorous efforts have been put forth by the Medical Society officials to improve and build up the attendance.

Columbia County, as a result of the re-organization about two years ago is building up the attendance and increasing the number of meetings of its society. With the spirit manifested by the medical men in that county good meetings should be expected in the future. A good meeting was had in January and a second is scheduled for March tenth.

C. A. Harper, *Councilor.*

FOURTH DISTRICT

The Fourth District, comprising the counties of Crawford, Richland, Iowa, LaFayette, and Grant with a total membership of 74, shows a loss of 4 from the total membership of last year. The delinquents total 4 for the district, three in LaFayette county and one in Richland county. We hope these delinquents will soon "make good," which will bring our membership equal to that of last year.

The general scientific interest of the district is very favorable. A district meeting held at Lancaster during the summer was well attended and there was much evidence indicating a desire on the part of the membership for such meetings to be held more frequently.

Wilson Cunningham, *Councilor.*

FIFTH DISTRICT

Owing to the fact that I took a five week vacation this summer I did not find time to visit but one county society outside of Sheboygan. I did attend a meeting of the Washington and Ozaukee County Society and found it in a flourishing condition under the able guidance of its kind, courteous and up-to-date secretary, Dr. A. H. Heidner. There were no complaints registered with me from any of the societies in my district and I am happy to state that I have but one delinquent to report. The largest gain was made by Manitowoc County Society. Sheboygan County is doing better in number of meetings and attendance and has added a few new members. They must come to the rescue when I hold my district meeting next June and I know that the boys will not fail me. I will try to hold a "worthwhile" meeting just before the season opens at Elkhart Lake, the most beautiful spot in Sheboygan County. And, Oh! Boy! when that old Fifth District wakes up, there will be something doing.

O. B. Bock, *Councilor.*

SIXTH DISTRICT

The district finds itself in very satisfactory condition at the first of the year, with but one delinquent and a net gain of six members for the year. There are now 202 members in the district.

The past year has been a profitable one, meetings have been quite regular and in most instances well worth while and well attended. Outagamie county is to be especially commended. The other counties have held regular meetings and the spirit is very good.

Your Councilor would recommend the union of Door County Society with Brown-Kewaunee. He would also recommend and will endeavor to promote the formation of a Sixth District Society.

F. Gregory Connell, *Councilor.*

SEVENTH DISTRICT

The Seventh District is well organized. Unfortunately no district meeting has been held this year. The officers apparently did not get active in time to have a fall meeting. We hope to repair this by having a meeting during the winter or in early spring. The La Crosse County Society meets regularly, has a full membership, but considering the facilities offered in a scientific way through the hospitals of the city and the number of young well trained men now in the Society, it is not doing as good scientific work as might be done. The T-J-B society is active, they hold meetings regularly and are doing very good work, very excellent indeed considering the large territory covered. Vernon county has been keeping up their organization and holding a few meetings. Juneau county has such a small membership that it is hard for them to have good meetings. We hope that joining them with Monroe will stimulate them to better attendance. Monroe County Society itself has not been as active as it might be. On the whole, however, there is no slipping back in the profession in the Seventh District.

Your Councilor has attended all the meetings to which he was invited during the past year, but outside of his own county this was only two.

E. Evans, *Councilor.*

EIGHTH DISTRICT

The Shawano County Medical Society is holding its membership and is functioning regularly. It holds quarterly meetings which are well attended and the spirit of the profession is excellent. The Shawano County Medical Society has sustained a great loss in the death of Dr. W. J. Ragan who was an ex-president and a loyal supporter of its activities.

(Continued on page XXIV.)

FROM THE PRESS

Shell Lake Register

WISCONSIN IS TODAY ONE OF HEALTHIEST STATES IN UNION

State Has Lowest Typhoid Fever Rate in United States; Also Lowest Maternity Death Rate

Madison, Wis., Jan. 6.—Two great health accomplishments are officially announced for Wisconsin this week. It has the lowest maternity death rate of thirty-six states in the registration area and it has the lowest typhoid rate in the Union.

Co-operation of physicians, health organizations and the general public, which is being educated on health matters, have aided in this remarkable victory. E. E. Witte, director of the Reference Library here, reported these findings in the State Medical Society at Milwaukee this week. All along the line the services of the physicians, nurses, and medical societies have been trained like a barrage on all kinds of diseases. The death rate from many of the previous causes have tumbled precipitately.

"For nearly all communicable diseases mortality rates have decreased with the increase in expenditures for public health and sanitation," declared the report. "This has been true alike of tuberculosis, typhoid fever, meningitis, diphtheria and the various children's diseases.

"In 1909 this state had a death rate of 14.6 per 100,000 population. In 1924 it was 7.4. Typhoid fever has shown a similar reduction since public health work was started in this state. In 1881 there were 9,714 cases of diphtheria with 1,404 deaths. In 1925, with double the population, there were 4,400 cases with 358 deaths and this was a bad year.

Walworth Times

STATE BATTERS DOWN DEATH RATE

Wisconsin Spends Money to Promote Better Health Among Its People

[This news letter is prepared under the supervision of the Health Committee of the State Medical Society of Wisconsin. Every effort is made to have every fact scientifically tested in the light of the latest developments in scientific medicine.—Editor.]

Madison, Wis., Jan. 13.—Wisconsin is spending more money to promote better health among its people than many of the surrounding states. This money is being used to batter down the death rate; to free the state from communicable diseases and to secure better health conditions thru sanitation. And the fiht against disease goes on.

"Toward tendency in number of diseases reported, probably due to better reporting; but fortunate-

Antigo Journal

JAN 21 1926

Antigo, Wis.—Gateway to Wisconsin's Playgrounds

HEART DISEASE GROWING.

The committee on health of the State Medical Society in a bulletin just issued brings out some startling facts relative to heart disease and issues a warning to the public, advising that a well ordered life is the best preventative of this disease which in its ratio of deaths now exceeds those from cancer, pneumonia or tuberculosis. The report shows that in many cases the cause can be traced to communicable diseases during childhood.

"The causes of heart diseases fall into two distinct groups," declares the medical bulletin. "In early life, most often childhood and adolescense, acute infections are by far the commonest cause of heart damage. Bacteria, entering the body usually through diseased tonsils, get into the blood stream and are carried to the heart, where they may find a favorable opportunity to grow and cause damage. The commonest type of damage is an inflammation of the inside lining of the heart producing injury to one or more of the valves. The function of the heart is that of a [illegible] this injury [illegible] corresponding [illegible] as a pump [illegible]

"The [illegible] requirement [illegible] if possible [illegible] damage and [illegible] usual [illegible] nervous [illegible] initial [illegible] the heart. [illegible] the form [illegible] years, especially [illegible] general superv[illegible] most important [illegible] heart [illegible] efforts [illegible] and contag[illegible]

"The [illegible] only development [illegible] several common[illegible] generation [illegible] case, the heart [illegible] blood supply [illegible] carrying [illegible] lying it. [illegible] the brain [illegible] Osler [illegible] his blood vessels [illegible] inevitable accident [illegible] the problem [illegible] not discovered [illegible] retard or arrest [illegible]

Health Articles To Appear In Denmark Press

WEEKLY LETTER WILL BE FURNISHED BY COMMITTEE ON HEALTH OF THE STATE MEDICAL SOCIETY AND WILL TELL HOW TO LIVE SO THAT DISEASES MAY BE CHECKED AND REDUCED TO A MINIMUM.

Through arrangements with the State Medical Society of Wisconsin the Denmark Press will publish every week a weekly letter on Health. Scientific facts will be gathered and interpreted in such a way the laity will understand. These articles will furnish the most educational information on disease prevention and will deal with some specific subject, as cancer, diphtheria, etc., in a simple, enlightening way that all will comprehend. It is hoped that readers of the Press will be interested in such a service. The first article tells of health accomplishments as follows:

[illegible] r, that much of certain diseases, [illegible] d drink and to [illegible] tin. An even, [illegible] recreation, in [illegible] are avoided, in [illegible] common sense [illegible] red life, will do [illegible] to insure a useful and contented period during the last half span of our allotted time. The advise of a competent physician based on medical examinations made periodically is the best aid one can have to adjust his activities to his special needs."

SEN [illegible]

Superior Telegram

ADVISES WELL BALANCED LIFE

Work and Recreation in Proper Parts Will Build Up Heart.

MADISON, Wis.—That the "peak" record of deaths from heart disease can be lowered by a well balanced life of work and recreation," was the declaration of the committee on health of the State Medical Society of Wisconsin in an official bulletin. Because the ratio of deaths from heart diseases exceeds those from cancer, pneumonia or tuberculosis, the society has issued a warning to the public advising that a "well ordered life" is the best preventative. The report shows that in many cases the cause can be traced to communicable diseases during childhood.

AVOID HEART FAILURE BY WELL BALANCED LIFE OF WORK AND RECREATION—STATE MEDICAL PAPER

MANITOWOC HERALD -JAN 22-'26

MADISON.—That the "peak" record of deaths from heart diseases can be lowered by a well balanced life of work and recreation," was the declaration of the committee on health of the State Medical society of Wisconsin in an official bulletin. [illegible] r rate in the Union, an item [illegible] reat importance to the ever [illegible] asing number of summer [illegible] ors, since it means that Wisconsin leads all states in the [illegible] ty of its water supply."

Must Keep Close Watch.

injury results in a leak in a valve with a corresponding reduction in efficiency of the heart as a pump.

Weekly Articles on Scientific Medicine and Public Health Established by the State Society: Papers Request Service

Twenty-nine daily papers of Wisconsin and one hundred and thirty-one weekly papers have requested the new weekly press service of the State Medical Society of Wisconsin. This service, established the first of the year, consists of a news story weekly on some phase of the advancement of scientific medicine and public health.

The service is under the direction of the Committee on Public Health and Instruction and the secretary of the State Society. Mr. Fred L. Holmes, Madison, long legislative correspondent and Capital correspondent of many Wisconsin papers, is director of this news service of the State Society. Clippings received in the office of the secretary indicate that the service is being used widely. Letters from editors have uniformly commended this society for the establishment of a bureau to provide such information for the press, and through the press, to the public at large. Representative clippings on the first three stories issued are illustrated on the opposite page.

LAY ISSUE DISTRIBUTED

Upwards of 6,000 copies of the Third Annual Lay Issue of the Wisconsin Medical Journal were mailed late in January to suggested recipients in practically every community of the state. The recipients include high school libraries, state officers, county officers, men and women especially interested in public health questions, members of certain civic organizations together with a list of 3,750 suggested by individual members of the society. While the issue had been out but ten days at the time this is written many comments have been received.

"Have just seen your lay number," wrote Dr. Olin West, Secretary of the American Medical Association. "It looks fine. I will examine it more carefully as soon as I can, but I have seen enough to justify it. Congratulations!"

"It is certainly a beautiful and instructive number," writes Dr. A. R. Mitchell, Lincoln, Nebr., a trustee of the American Medical Association. "It should have a tremendous influence in placing before the people medical history and medical facts."

"The current issue measures up to the previously high standard," declares Mr. W. C. Sieker, principal of the Milwaukee Vocational School. "The subject matter is of interest to everybody and written in a style so that laymen can get the full significance. I hope you will keep me on your mailing list."

"The last Journal was a humdinger,'" writes Dr. M. D. Bird, secretary of the Marinette-Florence County Medical Society. "I am very glad to see our State Society put on the map."

"I wish to congratulate you on this very successful effort," writes Dr. J. H. J. Upham, Columbus, Ohio, trustee of the American Medical Association. "It is very well gotten up, full of topics of live interest and should attract a great deal of interest in your state."

"If people would read this magazine they would not be filled up with medical quackery," declared Dr. A. M. Carr, health officer of Madison, in a public interview.

"The articles are exceptionally interesting," writes Judge Joseph A. Padway, Milwaukee.

HYGEIA SUBSCRIPTIONS PRESENTED

Close to three hundred subscriptions to Hygeia were presented by the State Society at Christmas time. Recipients of this annual gift included state and county officers, normal school libraries, and prominent laymen especially interested in public health questions. It is not possible to quote from all the letters received but representative comments on this service of the society follow:

"I enjoy the magazine very much and have found it very helpful both personsally and in my work as Public Health and Child Welfare Chairman of Women's Clubs."—Mrs. O. E. Clymer, Hudson.

"We use it constantly and we feel that it is of great value."—State Normal School, Oshkosh.

"May I express to your organization, through you, my deep appreciation of their kindness and generosity in again sending me Hygeia? It has been such a help and the source of greatest information along health lines, to me in my work as Chairman of Public Health."—Mrs. A. H. Wilkinson, Milwaukee, Chairman of Public Health, Wisconsin Federation of Women's Clubs.

"It is certainly a most valuable magazine for our family."—Hon. Howard Teasdale, State Senator, Sparta.

(Continued on page XXXVI.)

THE JOURNAL BOOK SHELF

Diseases of Bronchi, Lungs and Pleura. By Frederick T. Lord, M.D. Lea & Febiger, Publishers, Philadelphia and New York. Second Edition, Thoroughly Revised, With the Addition of a Chapter on Pulmonary Tuberculosis. Illustrated with 107 Engravings and 3 Colored Plates.

Proceedings of the International Conference on Health Problems in Tropical America. Held at Kingston, Jamaica, B. W. I., July 22nd to August 1st, 1924, by Invitation of the Medical Department, United Fruit Company. United Fruit Company, Publishers, Boston, Massachusetts. 1924.

A Compend of Genito-Urinary Diseases and Syphilis, Including Their Surgery and Treatment. Fourth Edition, Revised. By Charles S. Hirsch, M.D. P. Blakiston's Son & Co., Publishers, Philadelphia.

Principles of Surgery for Nurses. (Illustrated.) By W. S. Woolf. W. B. Saunders Company, Publishers, Philadelphia and London.

Physical Chemistry in Biology and Medicine. Octavo of 425 pages, illustrated. 1925. By J. F. McClendon, Ph.D., and Grace Medes, Ph.D. W. B. Saunders Company, Publishers, Philadelphia and London.

The Surgical Clinics of North America. Volume V, Number 3, June, 1925. Mayo Clinic Number. W. B. Saunders Company, Publishers, Philadelphia and London.

Medical Clinics of North America. New York Number, September, 1925; Volume IX, Number II. W. B. Saunders Company, Publishers, Philadelphia and London.

International Clinics. Volume II. Thirty-fifth Series, 1925. J. B. Lippincott Company, Publishers, Philadelphia and London.

A Manual of Gynecology. By John C. Hirst, M.D. W. B. Saunders Company, Publishers, Philadelphia and London. Second Edition Revised, $3.50 net.

Physical Diagnosis of Diseases of the Chest. By Joseph H. Pratt, A.M., M.D., and George E. Bushnell, Ph.D., M.D. W. B. Saunders Company, Publishers, Philadelphia and London. 1925.

Allergy, Asthma, Hayfever, Urticaria and Allied Manifestations of Reaction. By William W. Duke, Ph.B., M.D. The C. V. Mosby Company, Publishers, St. Louis. With seventy-five illustrations. 1925.

BOOKS RECEIVED FOR REVIEW

Pygmalion or The Doctor of the Future. By R. M. Wilson, M.D., Ch.B. E. P. Dutton & Company, New York.

Lectures on Heredity. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington. St. Louis, 1923-24; 12mo, 250 pages, illustrated. W. B. Saunders Company, 1925, Philadelphia and London. Cloth, $2.50 net.

Lectures on Nutrition. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington. St. Louis, 1924-25; 12mo, 243 pages, illustrated. W. B. Saunders Company, 1925, Philadelphia and London. Cloth, $2.50 net.

Collected Reprints from the Department of Experimental Surgery of the New York University and Bellevue Hospital Medical College. Volume IV, 1922-1925.

Medical Clinics of North America. Volume IX, Number IV, Tulane University Number, January, 1926. Octavo of 381 pages, with 49 illustrations. Per clinic year, July, 1925, to May, 1926. Paper, $12.00, cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Abdominal Operations. By Sir Berkeley Moynihan, K.C.M.G., C.B., Leeds, London, England. Fourth edition, entirely reset and enlarged. Two octavo volumes totaling 1217 pages, with 470 illustrations, 10 in colors. Cloth, $20.00 net. W. B. Saunders Company, Philadelphia and London.

Ultra-Violet Rays in the Treatment and Cure of Disease. By Percy Hall, M.R.C.S. (Eng.), L.R.C.P. (Lond.). C. V. Mosby Company, 1924, St. Louis. Price, $3.75.

Medical Formulary. By E. Quin Thornton, M.D., Asst. Professor of Materia Medica in the Jefferson Medical College, Philadelphia. Twelfth Edition, revised. Lea & Febiger, Philadelphia and New York, 1925. Price, $2.50.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

BOOK REVIEWS

The Crippled Hand and Arm. A monograph on the various types of deformities of the hand and arm as a result from abnormal development, injuries and disease, for the use of the practitioner and surgeon. By Carl Beck, M.D. Illustrations 302. J. B. Lippincott Company, Philadelphia and London, 1925.

This is a monograph on the various types of deformities of the hand and arm as a result of abnormal development, injuries and disease.

DOCTOR:

When calling for the active principle of the Posterior portion of the Pituitary substance in solution, remember to specify PITUITARY LIQUID, ARMOUR, because it is made from U. S. government inspected glands and complies with all the requirements of the new U. S. P. X.

There are many Pituitary extracts on the market of varying strength and in order to be sure of your product, we suggest the advisability of insisting on a dependable make and commend to you ARMOUR'S because of the opportunity which our facilities make possible in the selection of raw material.

The same is true of our entire line of glandular preparations. Every particle of raw material put into process is normal in every respect and when insisting upon ARMOUR'S you may be sure of full therapeutic activity.

PHARMACEUTICAL PRODUCTS

ARMOUR AND COMPANY
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Europe!

Is your dream of travel colored by visions of old treasures, masterpieces, cathedrals, traditions of Europe; by Vienna—the research laboratory of the World? Or does the East call you with it's transition stage from the old Civilization to Western customs? Perhaps you prefer the South American Country, a new field for travel, with it's gorgeous foliage, it's modern cities?

Traveling means money. Our Income Fund Plan is a constructive program of investing for future vacations. Ask for the booklet M. D.

Morris F. Fox & Co.
INVESTMENT SECURITIES
EAST WATER AT MASON ··· MILWAUKEE ·· WIS.

The book is divided into two parts. Part I takes up the anatomy and physiology of the upper extremity, the congenital anomalies and the hand crippled by injuries, mutilations, burns and disease.

Part II takes up disturbances of wrist, forearm, elbow and upper arm crippling the function of the hand.

The congenital anomalies of the hand are clearly described. The hand crippled by injury or disease is well shown in numerous case reports. Treatment is given first consideration and in this the author is at his best. The plastic surgery as applied to the hand is very instructive and some of the methods employed very ingenious.

It is a book which may be read with profit by anyone being called upon to treat the ordinary injuries of the hand, and to those who treat anomalies or the end results of trauma or disease as affecting the hand it should be a real help.—R. E. B.

Practical Medicine Series. Volume V on Gynecology and Obstetrics. Gynecology edited by Thomas J. Watkins, M.D., F.A.C.S., Prof. of Gynecology, Northwestern University Medical School, Chicago. Obstetrics edited by Joseph B. DeLee, A.M., M.D., Prof. of Obstetrics, Northwestern University Medical School, Chicago. The Year Book Publishers, Chicago. Price per volume, $2.00; price of series of eight volumes, $15.00.

This is a review of the more important articles relative to gynecology and obstetrics which have appeared in the literature of the past year, with criticisms and suggestions by the authors. The manual is interesting and instructive as the articles are well selected and the criticism of such outstanding men as Watkins and DeLee is very valuable.—C. S. H.

Physiotherapy, Theory and Clinical Application. By Harry Eaton Stewart, M.D., President-elect American Academy of Physiotherapy; Attending Specialist in Physiotherapy, U. S. Marine Hospital, N. Y. Price $7.50. Paul B. Hoeber, Inc., New York.

Most of the books on Physiotherapy that have so far appeared are rather poorly arranged in content and sequence of subjects. Some of them seem to be rather haphazard lectures, with no continuity in the treatment of subjects, and are ill adapted for students and for class room work. Dr. Stewart's recent book is different, and has been written in logical and pleasing fashion. The author discusses galvanism in its various phases and forms of application, faradism, the static currents, high frequency, thermotherapy, massage, hydrotherapy, ultra violet radiation, and indicates the clinical application for these various physiotherapeutic measures. The material is clearly presented, and the book is a contribution to the growing interest in physiotherapy.

—J. C. E.

Methods and Problems of Medical Education. Third series Division of Medical Education, The Rockefeller Foundation, New York, 1925. Under direction of Dr. Richard M. Pearce, 61 Broadway, New York City, N. Y., U. S. A.

Under the title "Methods and Problems of Medical Education" the Rockefeller Foundation is publishing collections "of brief descriptions of clinics, laboratories and methods of teaching and research in different parts of the world in order that the information in convenient form may be brought to the attention of those most interested and in the hope that the material may be of assistance to those planning improvements in buildings and methods." Although data along these lines are indispensable to those interested in medical education they have hitherto been scanty, scattered and incomplete and the Rockefeller Foundation is performing a real service in thus making them available.

The present volume is the third set of articles published. Each article is designed to give a specific account of a given laboratory, institute, clinic or method of teaching a given subject and is written by the head of the department concerned.

In the first series descriptions of methods of teaching anatomy and of anatomical laboratories included the University College (London), Peking Union Medical College, the University of Brussels, the University of Würzburg, the University of Basel, abroad, and Yale and Wisconsin in this country. It also included a description of the pathological Institute at Graz, of the Thorndike Memorial Laboratory of the Boston City Hospital, and of obstetrics at Harvard and the Peking Union Medical College.

In the second series there are described methods of use of sanitary surveys as a part of the medical course as developed at Harvard.

In the third series there are described the departments of physiology at the Universities of Cambridge (England), Harvard, Groningen, and Western Reserve; the departments of pharmacology at Western Reserve and Peking Union Medical College; the departments of pathology at Western Reserve, McGill, and Johns Hopkins; the departments of anatomy at Western Reserve, Leiden, Frankfurt am Main, and Strassburg; the institute for Parasitology at Cambridge (England); the obstetrical and gynecological unit, London; the departments of physiological chemistry at Peking Union Medical College and Yale; and the department of surgery at Peking Union Medical College.

The great advantages of these series are that they give concrete data rather than vague generalities, they are well illustrated, and they enable one to get an international viewpoint of the progress being made in facilities for medical education.—C. R. B.

A Textbook of Medical Diagnosis. By James M. Anders, M.D., Prof. of Medicine, Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania; and L. Napoleon Boston, M.D., Associate professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Third edition, entirely reset. Octavo of 1422 pages, 555 illustrations. Cloth, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

The third edition of this standard text differs in no great detail from its predecessors. The omission of characteristic case reports has certain obvious advantages but loses to the reader a measure of personal touch which the earlier editions had included. Even in a volume of such physical dimensions as the present text,

MADISON NEUROLOGICAL CLINIC

First Central Building
Madison, Wisconsin

The work of this Clinic is limited to neurology, psychiatry, syphilis, cardiac and endocrine disorders.

The service is both diagnostic and therapeutic.

Syphilis in all its phases, especially late manifestations and syphilis of the central nervous system, will be treated. Limited hospital facilities for this purpose are available at Madison.

Metabolic and cardiac disorders will receive special attention.

Our diagnostic service includes psychoneuroses, psychoses, conduct and behavior disorders in children.

The Clinic is equipped to render special service in the following diagnostic methods:

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it is scarcely conceivable that any given subject can be exhaustively treated. Indeed, one questions the wisdom of attempting to cover in a single text the multiplicity of subject materials dealt with by Anders and Boston. It is entirely probable that the laboratory sections might have been eliminated without great loss to the continuity of treatment of the materials of the text.

Exception is taken to several fundamental statements scattered through this book. The first mis-statement, according to the lights of the reviewer, is the implication that activity of a pulmonary tuberculosis may be determined by X-ray. The omission of mention of certain diseases as rheumatic fever and chorea among the diseases with common sequellae in the past medical history should be corrected. Practice of auscultation through clothes as suggested on Page 67 is to be discouraged emphatically. The work of Capps on the reference of the pain of diaphragmatic pleurisy should be more accurately stated (Page 79). The work of Manges on the radiologic findings in non-opaque foreign bodies of the bronchus apparently receives no consideration. In the judgment of the reviewer the utility of auscultatory percussion is over-stressed. The pleural cough is rather inadequately described by the authors although its clinical characteristics are very apparent. The figure purporting to represent the displacement of the heart by a large left-sided pleural effusion is certainly a gross exaggeration of the actual cardiac swing under such circumstances. On page 152 the "horizontal" measurement of the chest should probably be changed to read "vertical." The diagnosis of interlobar pleurisy is much more adequately made than one would gather from the description on Pages 163-164. In regard to vital capacity, the standards of West and of Dreyer based on body area rather than height have replaced the standards of Peabody and Wentworth suggested by the author. In the World War the Allied research workers set 80 m.m. of mercury as the shock level rather than 50 m.m. as stated by Anders and Boston. The confusion of trypanosomiasis with kala azar is an error which cannot be condoned.

The proof-reading in this volume is particularly poor for one which has passed through its third edition. Common errors in spelling are found. The X-rays of the chest are very poor in detail, a criticism which may be made of practically all text-books, including such illustrations. In our judgment this fault might readily be corrected if more attention were paid to the selection of good plates for printing and to the technique of reproduction.

These criticisms, while pertinent, should not be construed to condemn the general style and text of the book. It is a monumental production in which the vast experience of the authors and the abundant illustrations are communicated to the reader in an extremely available form The existence of adequate textbooks on laboratory diagnosis has led the reviewer to suggest the omission of the same materials from this text. The sections on electrocardiography and the nervous diseases are quite excellent.—W. S. M.

Old and New Viewpoints in Psychology. By Knight Dunlap, Prof. of Experimental Psychology in the Johns Hopkins University, Baltimore; Formerly President of American Psychological Association. Price, $1.50. C. V. Mosby Company, St. Louis, 1925.

This book is a collection of a series of lectures given by the author on various public occasions several years ago. The style is rather informal and spicy, as such talks would naturally be The book is sufficiently simple for any educated person to read with profit.

For the medical profession, undoubtedly the first chapter, on psychological tests, is of chief importance. Incidentally, this chapter is written somewhat more seriously than the others. Dunlap shows in this chapter with much clarity the essential nature, strength, and weakness of the various types of psychological tests. While realizing fully the value of such tests, he also takes a thoroughly judicious and conservative attitude toward their exploitation. A medical man could not find a better account of the possibilities of scientific tests in so brief a space.

In a later chapter, Dunlap pays his respects to various of the newer theories which are finding their way into modern psychology. Upon the whole his position is unnecessarily conservative. While pointing, quite truly, to certain inconsistencies and extravagances of Behaviorism on the one hand, and Freudianism on the other, he seems to be so blinded by these defects that he fails to see the very real possibility in both tendencies. It is too much to expect anything of much importance to spring full grown and perfectly formed from the mind of any one man or any group of men, in a brief period of time. It is too much to expect that Behaviorism will show all of the logical perfections of a mathematical science or a highly polished system of metaphysics. It is growing, and growth means immaturity.

In a similar way, the Freudian psychology is also growing, and growth in this case also means immaturity, and both logical and psychological crudity. It would be unfortunate, therefore, for the reader to reject both these vigorous new tendencies because of certain very real weaknesses and defects. Dunlap's harshness in this case does not add strength to his book.—C. L. H.

The Principles and Practice of Obstetrics. By Joseph B. DeLee. W. B. Saunders Company, Philadelphia and London.

This is always an excellent textbook. This newest edition, very carefully revised, is the best textbook obtainable in Obstetrics. It combines excellent theory with sound practice, dictated by many years of rich experience, and includes all the latest developments which have been generally accepted by conservative obstetrics.

—C. S. H.

RECORD NOT REQUIRED

"On Tuesday we buried a limb that was amputated, for which we got a permit from our health officer. Was this correct?" Reply was made: "It is not necessary to obtain a burial permit in order to bury an amputated limb. A burial permit is required only in cases where the person dies. No provision is made for recording amputations."

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Some Physiological Aspects of Anemias*

BY CHAUNCEY D. LEAKE, PH.D.

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However imperfect and discordant may be the current opinions about the physiology of blood production and blood destruction, even a brief consideration of them will indicate that advances are being made which are becoming helpful to physicians in taking care of anemic patients. This progress may be expected to continue, especially in view of the clinical importance of the anemias, which Dr. Yates, in his preamble to this series of papers, has emphasized. An acutely critical attitude toward experimental and clinical studies in this field will gradually remove the great ignorance which honest confession must now reveal.

GENERAL PHYSIOLOGICAL CONSIDERATIONS

It is important to keep in mind the distinction between red blood cells and hemoglobin. The hemoglobin is, of course, the essential material for providing the cells of the body with the oxygen necessary for their life. But it does not remain free in solution in blood plasma. It functions properly only when organized in the erythrocytes. This organization of hemoglobin in the red cells varies under different conditions, and does not bear any constant relation to the number of red cells.

The average error in estimating the number of erythrocytes per cmm. of blood seems to be about plus or minus two per cent, while the average error in estimating hemoglobin is probably more than plus or minus five per cent with the usual clinical methods. Unless hemoglobin figures are given in grams per 100 c.c. of blood, or in terms of oxygen-carrying capacity, confusion results, since there is little agreement as to what constitutes 100% hemoglobin. Keeping in mind these errors in estimation, it may be stated, however, that the erythrocyte count remains remarkably constant during the life of a healthy human adult. Nevertheless, red cells are always being removed from the circulation, while new ones are steadily entering it. To keep the number constant, the rate of entrance of new erythrocytes obviously must keep pace with the rate of removal of old ones. If red cells are suddenly removed from the circulation, as in hemorrhage, or incapacitated, as in CO poisoning, Barcroft[1] has neatly demonstrated the possibility of the spleen acting as an emergency reservoir and being able to squeeze out a considerable mass of non-circulating erythrocytes. How far these experimental findings can be applied to man has not yet been determined.

According to a recent excellent review,[2] only two normal methods can be recognized whereby worn-out red cells leave the circulation. These are by fragmentation anywhere in the blood stream, with the fragments lodging in the spleen, and by phagocytosis, which takes place chiefly in the spleen. The rate at which this destruction of erythrocytes takes place cannot be satisfactorily estimated. Since Broun's work[3] indicates that red cell destruction varies with the degree of muscular activity, one is scarcely justified in assuming a constant rate of removal, even in the "normal" individual.

Hemoglobin seems to be broken down in the liver, where the iron is conserved, and also some of the pigment, for future rebuilding of the substance. The calculation of the rate of hemoglobin destruction from the bilirubin or urobilin excretion has been stated to be "unsound in principle and open to large error in practice."[4] It seems to be agreed, however, that a considerable diurnal variation in the hemoglobin content of blood is to be noted in normal persons.[5] This variation is ten per cent and higher.

These considerations show that we are not in a position to judge how fast red cells or hemoglobin are removed and replaced under ordinary conditions in the healthy human. The greater constancy of the erythrocyte count in comparison with the hemoglobin content may simply be a reflection of greater accuracy in method. On the other hand, it may indicate that the number of new red cells entering the circulation is more nicely adjusted to

*Presented before 79th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, Sept. 17, 1925.

the loss of old ones, than in the case of the replacement of old hemoglobin with new. Again, since the size of the red cells does not appreciably vary under ordinary conditions in health, it may indicate that variations in the amount of hemoglobin carried by different cells occur normally.

In normal adult life, the red blood corpuscles are formed in certain areas of the red bone marrow, the anatomical characteristics of which have been most succinctly described by Bunting.[6] The marrow is a very plastic organ enclosed in a rigid case of bone, and consists of a blood-vascular system, fat cells, and blood-forming centers supported by a reticulum. The circulation is peculiar in that no capillary net-work is present. Arterioles pass from the central artery of the marrow toward the periphery, where they enter directly into thin-walled venus sinuses. These return toward the center and join with each other in pyramidal clusters, forming finally large collecting veins which empty at small regular intervals into the central vein. The arterioles are thick-walled, while the sinuses have very thin endothelial walls. The fat cells and the hemogenic clusters lie between these sinuses. Active mitosis exists in the cells of the hemopoietic groups, and the mature differentiated cells lie on the periphery of the clusters, next to the thin-walled venous sinuses. Evidence has been furnished by Drinker[7] that the passage of mature red cells through the thin-walled venous sinuses is due mainly to the growth-pressure of the erythroblastic cells in the erythrogenic centers, as postulated by Bunting.[6] Nothing is known about the rate at which this process takes place. From a physiological standpoint, however, it would seem that the growth of new red cells would be regulated more or less by the demand, and hence the rate of their entry into the blood stream would depend upon the rate at which the older ones were removed. This would imply some sort of hormonal regulation, probably between the spleen and the red bone marrow.

The extent of hemopoietic tissue in active use by an adult is usually estimated by microscopic inspection of the bone marrow taken from the mid-third of the femur. In certain conditions, as in life at high altitudes, after hemorrhage or excessive blood destruction, there is found hyperplasia of the hemogenic centers of the marrow, with crowding out of fat cells. Under extreme pathological conditions, as in Addison's anemia, this process becomes very marked. Loevenhart[8] has shown that the demands of the tissues for oxygen is the ordinary stimulus for this hyperplasia. Extension of the functioning red marrow raises the peripheral blood count to a level higher than normal provided the rate of blood destruction is not too rapid. But this increase in the peripheral count is slow, even under the most favorable circumstances, when the rate of blood destruction remains, so far as is known, the same as normally. In controlled experiments in which animals are exposed to abnormally low oxygen tensions, "from five to seven days is required for the increase in the blood count to become very marked but the maximum increase requires a longer exposure."[8] It is evident, then, than an increase in the amount of functioning red marrow is not in itself a criterion of injury to the hemopietic organs. It remains for the pathologist to determine the character of injury to the marrow, if any is suspected, as in Addison's anemia, and further, to determine whether or not recovery from that injury is possible.

The place and mechanism of hemoglobin formation remains unsettled. "Hemoglobin is a conjugated protein consisting of globin and a non-protein part, containing pyrrol nuclei and iron."[9] The materials from which hemoglobin is made are derived from the food, and from some conserved pigment and iron obtained in the liver from the breakdown of hemoglobin removed from "scrapped" erythrocytes. The factors necessary for the synthesis have not been clearly elucidated, but sunlight and certain accessory food factors which may be obtained from cod-liver oil or from vegetable sources seem to be significantly involved.[10] The actual place of synthesis of hemoglobin from its components seems to be in the red bone marrow, but whether or not the process is associated with the growth and delivery of the erythrocytes has not been determined.

GENERAL CONSIDERATION OF ANEMIAS

There are certain obvious points in regard to the anemias which are worth mentioning at any time, since it would seem they cannot be too strongly emphasized. Anemia is due to excessive blood loss, to defective blood formation, or to both these conditions, and it may be manifested chiefly in the red cells, or in the hemoglobin, or in both. There are well known and relatively simple methods for ascertaining in which direction the

anemic condition is manifesting itself, and for determining the general nature of the cause. The physician is privileged to do this with promptness. The findings will indicate the character of the corrective measures to be employed. Obviously, if the anemia is due to excessive blood destruction, it is not rational to expect improvement merely by attempting to stimulate blood formation.

An anemia may be considered benign when spontaneous recovery takes place upon removal of the cause, whether toxic hemolysis from some focus of infection, slight chronic hemorrhage, malnutrition, or otherwise. Clinicians frequently note anemias, however, which do not show spontaneous recovery after the removal of the apparent cause. Such instances seem common in women at the menopause, or in patients in whom an anemic condition has long been chronic. Here the blood forming organs seem inhibited, and usually some stimulus appears necessary in order to increase their activity sufficiently to overcome the slightly reduced blood picture.

The causes for Addison's (so-called pernicious) anemia, and for aplastic anemia remain obscure. Spontaneous recovery, except for transient remissions, is not observed. Rational treatment is impossible, since the cause for the excessive blood destruction in the one case has not been determined, and since the reason for the defective blood formation in the other is unknown. In these instances, transfusion seems to offer the best available means for prolonging life, and relieving acute distress.

SUSCEPTIBILITY OF HEMOPOIETIC SYSTEM TO TOXINS

Most acute or chronic infections are accompanied with anemia. Considerable interest has been aroused by the recent work of Cornell[11] and Kahn and Torrey[12] on the experimental anemias produced by B. Welchii and its toxin, because of the clinical finding of abnormally large numbers of this organism in the stools of patients suffering from Addison's anemia.[13] Patterson and Kast,[14] however, found the same types of anemias resulting from experiments in which other bacteria common in chronic intestinal disease were used, and also by employing butyric acid, a product of B. Welchii putrifaction, and again, in a somewhat similar form, by using sterile distilled water. These authors make the following pertinent statement:

"The production of more or less severe experimental anemia in animals by injections of bacterial toxin only verifies generally accepted clinical experience on human beings that such poisons play a very important part in the more chronic types of anemia of man, but it is evident that further observations will be required before one can justly designate such experimental anemias, even when they are very severe or fatal, as presenting the counterpart of so-called pernicious anemia in man."

That stricture in the upper part of the colon, leading to resorption of hemolytic toxins and bile, is a causal factor in the development of Addison's anemia has been proposed by Seyderhelm[15] and Dixon.[16] Both report immediate improvement in Addison's anemia after ileostomy. Seyderhelm's work in the experimental production of anemias by extracts of feces from Addison's anemia patients could not be confirmed by Cornell.[17]

One is apt to associate toxemia of intestinal origin as a factor in Addison's anemia with the practically constant finding of achlorhydria in this condition. There is no direct evidence for such an assumption. While complete gastrectomies have been followed by the development of Addison's anemia in humans, in experimental animals no such results have been obtained.[18] Studies have not yet been reported upon changes in the intestinal flora after this operation.

ACHLORHYDRIA AND ADDISON'S ANEMIA

The significance of achlorhydria to Addison's anemia is a debatable question. Certainly the weight of clinical evidence indicates that it precedes other symptoms of the disease. If it is a factor in the development of the anemic condition, the *modus operandi* is obscure. On the other hand, the general atrophic condition of the gastroenteric tract in Addison's anemia may be a result of the underlying process which is at the same time disturbing the hemopoietic system.

Experimental study of this problem has hardly yet been attempted. Some preliminary work indicates that slight chronic atrophic gastritis, with loss of acidity, may be induced in dogs by the periodic administration of weak sodium fluoride solutions by stomach tube. In these animals I have noted a slight anemia, with normoblasts, diarrhoea, loss of weight, and in some killed after ten weeks study, abnormal deposition of iron pigment in the spleen and red marrow. These

studies should be carefully repeated, with adequate controls, using other routes of administering the fluorides, and with bacteriologic examination of the stools, thorough analysis of the blood picture, and with much longer periods of experimentation.

The clinical success achieved by Hurst[19] and by VanderHoof[20] in administering large quantities of dilute hydrochloric acid in Addison's anemia, and in combined spinal sclerosis, deserves careful consideration. When one considers the clinical improvement noted under this form of therapy along with the clinical observation that achlorhydria precedes other symptoms of Addison's anemia (so far as critically reported), it strongly suggests that *measures may be taken by the medical profession to reduce the incidence of the disease.* At least, it would seem worth while for clinicians to include gastric analysis more frequently in medical examinations, and to consider the routine administration of dilute hydrochloric acid if achlorhydria be found.

This matter merits discussion. The public would have to be educated to submit to gastric analysis as a matter of course in a general medical examination. Would the questionable benefits to be derived justify an educational program such as that in progress with respect to tuberculosis and cardiac diseases? Would the years of critical study necessary to determine the effectiveness of the proposal justify the time and trouble involved? What is the danger of inducing gastric ulcer by the routine administration of hydrochloric acid at meals? If the development of Addison's anemia can be prevented by the early recognition of achlorhydria and the judicious administration of dilute hydrochloric acid with meals, the benefits derived would certainly seem to be worth all the time and trouble involved in establishing the fact.

PHYSIOLOGIC ASPECTS OF TREATMENT

An improvement in the blood picture in anemia can only be considered a "cure" when the cause of that anemia has been accurately determined and removed. Symptomatic treatment of anemias is limited to reducing blood destruction, increasing blood formation, and transfusion. Therapy in the past seems to have been chiefly concerned with methods designed to increase blood formation. At times this may be highly irrational, as when there is evidence of exhausted or overstimulated red marrow. There is every indication, for example, that adequate stimulation is present to the blood-forming organs in Addison's anemia; an added stimulus may rapidly lead to exhaustion. The abnormal type of red cell production in this disease suggests malignancy, and the analogy may be pushed further, when one considers its hereditary aspects, as pointed out by Dr. Patek[21] in connection with similar phases of other types of malignant growth. On this basis, a stimulus to blood formation in Addison's anemia is strongly contraindicated.

It is peculiar that careful experimental studies fail to substantiate the clinical experience of many years that iron and arsenic are beneficial in anemia. Even clinical skepticism has now been voiced by Janes[22] in regard to their value in secondary anemias. Whipple[23] has, however, shown experimentally that iron promotes rapid regeneration of hemoglobin after repeated standard hemorrhages, when actual iron deficiency was probably present. The importance of accessory food factors in this connection has been shown by Steenbock and Hart[10] at the University of Wisconsin. Arsenic has never been shown experimentally to exert any favorable influence on blood production. Germanium dioxide has been discredited both clinically and experimentally.

On the basis of theoretical considerations of the relation of the spleen to the red marrow and to erythrocyte production, as first stated by Pearce and his associates[24] and by Eddy,[25] a combination of desiccated spleen and red bone marrow has been studied in regard to its effect on the hemopoietic system in normal animals and humans.[26] The rather prompt increase in the red cell count, and later in the hemoglobin, as observed in these experiments, led to the clinical use of this material in various types of anemia. The results have been reported to you on former occasions.[27] Continued clinical study of this method of stimulating erythrocyte production has confirmed the previous statements, and with careful control periods to meet objections raised. This form of treatment is symptomatic, and is indicated when stimulation of erythrocyte production is desired. The physiologic basis upon which it has been developed remains to be established beyond reasonable doubt, but it seems so far to be abundantly confirmed.

SUMMARY

The relative constancy of the peripheral red cell count in normal adults is maintained by a delicate balance between erythrocyte destruction and for-

mation. This involves coordination (possibly chemical) between the spleen, the organ chiefly concerned with the removal of red corpuscles, and the red marrow, in which the erythrogenic centers lie. These centers function with a margin of reserve at a rate proportional to red cell destruction, with hyperplasia occurring when this margin of reserve is exhausted.

This conception furnishes a physiologic basis for the use of combined desiccated spleen and red bone marrow as a means of stimulating red cell formation, and experimental evidence has further justified this use. Clinical evidence indicates that such a preparation is beneficial when such a stimulus is desired.

Whatever may be the processes involved in the development of Addison's anemia, it seems significant that achlorhydria is noted among the earliest symptoms, if gastric analysis is made. May it not be worth while to include a gastric analysis more frequently in medical examinations, and if subnormal acidity is found, to institute hydrochloric acid therapy, in the effort to reduce the incidence of the disease?

For discussion see page 127.

BIBLIOGRAPHY

1. Barcroft, J.: Recent Knowledge of the Spleen, Lancet, 1:319 (Feb. 14) 1925.

2. Rous, P.: Destruction of the Red Blood Corpuscle in Health and Disease, Physiol. Rev., 3:75 (Jan.) 1923.

3. Broun, G. O.: Blood Destruction During Exercise, J. Exper. Med., 36:481 (Nov.) 1922; 37:113 and 187 and 207 (Jan. and Feb.) 1923.

4. Broun, G. O., McMaster, P. D., and Rous, P.: Relation between Blood Destruction and the Output of Bile Pigment, J. Exper. Med., 37:733 (June) 1923.

5. Dreyer, G., Bazett, H. C., and Pierce, H. F.: Diurnal Variations in the Hemoglobin Content of Blood, Lancet, 2:588 (Sept. 18) 1920. Rabinovitch, I. M.: Variations of the Percentage of Hemoglobin in Man During the Day, J. Lab. Clin. Med., 9:120 (Nov.) 1923.

6. Bunting, C. H.: The Regulation of the Red Blood Cell Supply, Osler Festschrift, 2:824 (July 12) 1919.

7. Drinker, C. K., Drinker, K. R., and Lund, C. C.: Circulation in Mammalian Bone Marrow, Amer. J. Physiol., 62:1 (Sept.) 1922.

8. Dallwig, H. C., Kolls, A. C., and Loevenhart, A. S.: The Mechanism Adapting the Oxygen Capacity of the Blood to the Requirements of the Tissues, Amer. J. Physiol., 39:77 (Nov.) 1915.

9. Anson, M. L., and Mirsky, A. E.: On Hemochromogen and the Relation of Protein to the Properties of the Hemoglobin Molecule, J. Physiol., 60:50 (May 21) 1925.

10. Laurens, H., and Sooy, J. W.: Effect of Light and Darkness on Blood Cell Number of Growing Albino Rats, Proc. Soc. Exper. Biol. Med., 22:114 (Nov.) 1924. Hart, E. B., Steenbock, H., Elvehjem, C. A., and Waddell, J.: Iron in Nutrition. I. Nutritional Anemia on Whole Milk Diets and the Utilization of Inorganic Iron in Hemoglobin Building, J. Biol. Chem., 65:67 (Aug.) 1925.

11. Cornell, B. S.: A Chronic Infection with B. Welchii, J. Infect. Dis., 36:425 (May) 1925. Blood Changes in B. Welchii Infection, J. Infect. Dis., 36:508 (June) 1925.

12. Kahn, M. C., and Torrey, J. C.: A Pernicious Anemia-Like Blood Condition Produced in Monkeys with B. Welchii Toxin, Proc. Soc. Exper. Biol. Med., 23:8 (Oct.) 1925.

13. Herter, C. A.: On Bacterial Processes in the Intestinal Tract in Some Cases of Advanced Anemia, With Special Reference to Infection with B. Aerogenes Capsulatus (B. Welchii), J. Biol. Chem., 2:1, 1906. Moench, L. M., Kahn, M. C., and Torrey, J. C.: Analysis of the Fecal Flora in Thirty-three Cases of Pernicious Anemia, J. Infect. Dis., 37:161 (Aug.) 1925.

14. Patterson, M. B., and Kast, L.: Bacillus Welchii as an Agent in Experimental Anemia, Proc. Soc. Exper. Biol. Med., 23:171, (Dec.) 1925.

15. Seyderhelm, R.: Die Bedeutung des Dünndarms für die Genese der Perniziösen Anämie, Klin. Wchnschr., 3:568 (April 1) 1924.

16. Dixon, C. F.: Mayo Clinic Bulletin, 6:161 (Feb. 7) 1925.

17. Cornell, B. S.: Pernicious Anemia; Etiological Considerations, with Report of a Series of Experiments, Canad. Med. Asso. J., 15:26 (Jan.) 1925.

18. Farrell, J. I., and Ivy, A. C.: On the Occurrence and Control of an Anemia That Follows Total Gastrectomy, Proc. Amer. Physiol. Soc., Dec. 29, 1925. Mann, F. C.: Personal communication.

19. Hurst, A. F.: Essays and Addresses, p. 53, New York, 1925.

20. VanderHoof, D.: Etiologic Relation of Achylia Gastrica to Combined Sclerosis of the Spinal Cord, Arch. Int. Med., 32:958 (Dec.) 1923.

21. Patek, A. J.: Family Pernicious Anemia, J. Amer. Med. Asso., 56:1315 (May 6) 1911.

22. Janes, M. L.: Comparative Value of Blood Transfusion and Blood Tonics in Secondary Anemia, Amer. J. Med. Sci., 169:563 (April) 1925.

23. Whipple, G. H., and Robscheit-Robbins, F. S.: Blood Regeneration in Severe Anemia, Amer. J. Physiol., 72:395, 408, 419, 431 (May) 1925.

24. Pearce, R. M.: The Spleen and Anemia, Philadelphia, 1918. Krumbhaar, E. B., and Musser, J. H., Jr.: Effect of Spleenectomy on the Hemopoietic System of Macacus Rhesus, Arch. Int. Med., 31:686 (May) 1923.

25. Eddy, N. B.: The Internal Secretion of the Spleen, Endocrinology, 5:461 (July) 1921.

26. Leake, C. D., Leake, E. W., and Bacon, F. J.:

The Erythropoietic Action of Red Bone Marrow and Spleen Extracts, J. Pharmacol. Exper. Therap., 22:75, 109 (Sept.), 401 (Dec.) 1923; 23:353 (June) 1924.

27. Leake, C. D., and Evans, J. S.: Note on the Use of Red Bone Marrow and Spleen in the Treatment of Anemia, Wis. Med. J., 22:191 (Dec.) 1923. Evans, J. S., and Leake, C. D.: Indications and Contra-Indications for the Use of Combined Spleen and Marrow in Anemic Conditions, Wis. Med. J., 23:282 (Nov.) 1924. Leake, C. D., and Evans, J. S.: Bone Marrow and Spleen in the Treatment of Anemia, Amer. J. Med. Sci., 168:819 (Dec.) 1924.

Clinical Aspects of Anemias*

BY G. O. BROUN, M.D.
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The factors involved in the causation of anemia may be divided into three main groups, (1) Hemorrhage, (2) Deficient blood formation, (3) Increased blood destruction. While these processes can occur separately it must be recognized that many clinical cases will be encountered in which two or even all three are simultaneously operative. It is my intention to present to you today certain observations which I think are of some value in the recognition of the mechanism producing a given anemia. The investigations here reported were largely carried out at the Thorndike Memorial Laboratory in Boston, by Dr. F. W. Peabody, Miss Olivia Ames, Miss Sylvia Warren, and myself. The work is being continued at St. Louis University in St. Louis.

Increased blood destruction can be recognized in various ways. It was the finding of deposits of iron in the liver and spleen in cases of pernicious anemia that led Wm. Hunter to the conclusion that this disease is of hemolytic origin. Such an observation is rarely possible in the living subject. We all know that if a hemolytic agent is added to whole blood, hemoglobin will be set free in the plasma. It is however very exceptional to find cases in which hemoglobin is present in plasma in such gross quantities as to be recognizable with the naked eye. Only once have I observed this phenomenon. The case was one of acute bichloride of mercury poisoning. The usual type of blood destruction that gives rise to anemia is a much more gradual process. Nevertheless in pernicious anemia and other conditions associated with increased destruction of erythrocytes minute quantities of hemoglobin are set free in the plasma and can be recognized by spectroscopic examination. It is difficult in any given case to be sure that such minute quantities of hemoglobin are not set free as a result of trauma in drawing the blood.

Occasionally, by means of the spectroscope, one is also able to find traces of hematin, one of the split products of hemoglobin, in the plasma of patients with pernicious anemia. By far the most satisfactory evidence of increased blood destruction, from a clinical point of view, is to be found in a study of other split products of hemoglobin, the bile pigments. It is known that the production of intravascular hemolysis or the injection of hemoglobin will increase the output of pigment in bile. The increase in the pigment output in the stools in hemolytic conditions is therefore a valuable index of increased blood destruction. The quantitation of stool pigments offers considerable difficulty as a clinical test. In recent years therefore attention has been turned to the plasma bilirubin. It has long been recognized that conditions which seemed associated with increased blood destruction show an increase in the bilirubin content of the plasma. An increase in plasma bilirubin is of course also present in many types of liver lesions, and is recognized clinically as jaundice. It remained for Hymans Van den Bergh to provide us with a practical method of distinguishing the hemolytic type of jaundice from that due to liver lesions. This he has done in his so-called "direct diazo reaction". The test depends on the time of appearance of a purple coloration after diazo reagent has been added to diluted plasma. The exact chemistry underlying the difference of reaction of the hemolytic and the nonhemolytic plasma bilirubin is not yet known. However experience has shown the test to be of distinct value. Van den Bergh and Snapper have also devised a method by which the diazo reaction can be used for the quantitation of plasma bilirubin. Thus the degree of jaundice may be determined. If these two tests are applied to the study of the anemias considerable light is thrown on the nature of the process at work.

Normal individuals will be found to have from

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TABLE 1.

ANEMIAS ASSOCIATED WITH HEMORRHAGE

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	5.272	42	0.40	Negative	0.3	Bleeding Hemorrhoids.
2	2.360	33	0.70	Negative	0.2	Bleeding Hemorrhoids.
3	1.264	30	1.20	Negative	0.1	Immediately after large hemorrhage from Duodenal Ulcer.
4	1.400	22	0.80	Negative	0.2	Banti's Disease with repeated Gastric Hemorrhages.
5	2.576	35	0.68	Negative	0.1	Banti's Disease, Gastric Hemorrhage.
6	3.808	50	0.66	Delayed	2.0	Acute Lymphatic Leukemia with severe nasal and gastric hemorrhages.

a mere trace up to 0.7 mg. of bilirubin per 100 c.c. plasma. With the direct diazo reaction no purple color is obtained.

HEMORRHAGE

Anemias due to hemorrhage are recognized clinically by the history or the actual observation of hemorrhage The plasma bilirubin findings in a number of cases of anemia due to hemorrhage are listed in Table 1. Chronic hemorrhage leads typically to a microcytic, low color index type of anemia. The plasma pigments are normal or below normal. Bone marrow exhaustion undoubtedly plays a role in many cases since recovery is slow even after the bleeding has entirely ceased. If the anemia results from a single large hemorrhage, immediately after it the color index may be close to normal. (See Case 3, Table 1.) Case 6, Table 1, probably represents a condition in which hemorrhage and increased blood destruction were simultaneously operative. The case was one of acute lymphatic leukemia, with severe nasal and gastric hemorrhages. The plasma pigments were distinctly increased and gave a delayed direct diazo reaction typical of the hemolytic type of jaundice.

The typical findings in anemia due to carcinomatous or sarcomatous growths are similar to those found in anemia due to chronic hemorrhage. The erythrocytes are small, the color index is low and the plasma bilirubin is at a low level. (See Table 2, Cases 1, 2, 3, 4, 5.) An important exception to the pigment findings is noted in the case of malignant growths which involve the liver or bile ducts in such a way as to produce obstruction to the flow of bile. (See Cases 6 and 7, Table 2.) As one would expect the plasma bilirubin is increased. The direct diazo reaction is however prompt. The anemia is the low color index type as found when the growth is located elsewhere. The prompt direct diazo reaction will be found in any anemia which is accompanied by jaundice due to a liver lesion.

Chronic nephritis gives the usual secondary type of anemia with low plasma pigments. A yellow coloration is produced when diazo reagent is added to the alcoholic extract of plasma of cases with impaired renal function, as is done in the quantitative determination of bilirubin. This coloration blending with the purple color of the bilirubin reaction prevents accurate quantitation of bilirubin

TABLE 2

ANEMIA ASSOCIATED WITH MALIGNANT GROWTHS

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	5.600	70	0.62	Negative	0.2	Carcinoma of Oesophagus.
2	1.820	21	0.58	Negative	0.1	Carcinoma of Sigmoid Colon.
3	4.270	71	0.83	Negative	0.2	Carcinoma of Stomach.
4	2.792	51	0.91	Negative	0.0	Sarcoma of Mediastinum.
5	3.900	42	0.54	Negative	0.3	Carcinoma of Kidney.
6	2.880	25	0.43	Prompt	2.0	Carcinoma of Stomach with Liver Metastases.
7	3.170	48	0.76	Prompt	9.6	Carcinoma of head of Pancreas involving Common Bile Duct.

TABLE 3

ANEMIA ASSOCIATED WITH CHRONIC NEPHRITIS

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	2.128	25	0.59	Negative	0.0	Chronic Nephritis.
2	3.688	46	0.64	Negative	0.0	Chronic Nephritis.
3	4.360	63	0.72	Negative	0.3	Chronic Nephritis.
4	3.712	55	0.74	Negative	0.0	Chronic Nephritis.
5	1.500	32	1.06	Negative	0.0	Chronic Nephritis.
6	1.896	45	1.20	Negative	?	Chronic Nephritis.

in nephritic plasma. However in many cases obviously no purple color is present. The findings in six cases of chronic nephritis are listed in Table 3.

Frequently cases of syphilis will show an anemia. (See Table 4.) They usually give no evidence of increased blood destruction.

Localized pyogenic infections such as perinephritic abscesses or osteomyelitis show anemias similar to those we have just been considering. (See Table 5.)

The anemias listed so far practically all give findings which would be considered as typical of secondary anemias. With the exception of the case of lymphatic leukemia none show any evidence of increased blood destruction. They are probably largely dependent on depression or exhaustion of the bone marrow.

GENERAL SEPSIS

When we turn to cases in which general sepsis is present a rather variable picture is found. (See Table 6.) Frequently a low color index, low pigment anemia is met with. If, however, a case is carefully followed at times evidence of blood destruction will appear. The plasma pigments will transitorily increase. The color index usually remains low but may be normal. (See Case 3, Table 6). Finally an increase in plasma bilirubin, giving a prompt direct diazo reaction, may be present. This probably indicates liver damage due to focal lesions set up by the septic process. Under such circumstances the direct diazo reaction fails as an index of blood destruction because the bilirubin of hepatic origin will give the prompt reaction even if there be at the same time an increase of bilirubin due to blood destruction. The interpretation that I would make of these findings is that in a septic process toxins are elaborated which first of all depress bone marrow function. At times substances exciting blood destruction are also produced. At such times the blood pigments show the increases of the hemolytic type.

Very similar are the conditions met with in the common infectious diseases. (See Table 7.) They are of course not always accompanied by anemia. Cases of lobar pneumonia usually show no anemia. Sometimes a slight anemia is encountered during convalescence. Severe cases, particularly those with positive blood cultures show some signs of increased blood destruction, as indicated by relatively high plasma pigments giving a delayed direct diazo reaction. Finally we frequently meet with cases with increased plasma bilirubin giving a prompt direct diazo reaction, due probably to liver injury.

TABLE 4

ANEMIA ASSOCIATED WITH SYPHILIS

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	3.960	35	0.45	Negative	0.3	Syphilis and Gonorrheal Arthritis.
2	4.368	60	0.69	Negative	0.2	Syphilis and Serofibrinous Pleurisy.
3	3.370	61	0.91	Negative	0.1	Syphilis and Gonorrheal Arthritis.
4	4.100	75	0.91	Negative	0.1	Syphilis and Chronic Myocarditis.
5	3.216	65	1.01	Negative	0.1	Syphilis and Acute Bronchitis.
6	3.750	75	1.00	Negative	0.5	Syphilis. Aortic Aneurism.

TABLE 5

ANEMIA IN LOCALIZED PYOGENIC INFECTIONS

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	5.560	52	0.47	Negative	0.1	Perinephritic Abscess.
2	3.528	45	0.64	Negative	0.2	Perinephritic Abscess.
3	4.110	68	0.83	Negative	0.0	Chronic Osteomyelitis.

TABLE 6

ANEMIA IN GENERAL SEPTICEMIA

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	3.320	45	0.68	Negative	0.4	Subacute Bacterial Endocarditis.
2	3.256	60	0.92	Negative	0.5	Subacute Bacterial Endocarditis.
3	1.174	24	1.02	Delayed	0.8	Subacute Bacterial Endocarditis.
4	2.690	49	0.91	Delayed	0.9	Subacute Bacterial Endocarditis.
5	2.552	50	0.98	Prompt	1.5	Subacute Bacterial Endocarditis.
6	2.696	52	0.96	Prompt	1.1	Staphylococcus Septicemia.

Broncho pneumonia gives the same variable picture as lobar pneumonia.

Case 5, Table 7, shows some evidence of increased blood destruction accompanying an acute bronchitis. Such a finding is seldom met with.

Cases of tuberculosis while sometimes unaccompanied by blood changes, will often show a low color index anemia of varying degre. Rarely a slight increase in plasma pigments will be found suggesting increased blood destruction. (Case 9, Table 7.)

In typhoid fever increased plasma pigments of the hemolytic type are rather frequently seen. The finding is transitory, however, and the anemia developed is usually of the low color index variety.

Acute rheumatic fever in my experience is practically never accompanied by signs of increased blood destruction. Occasionally an anemia is met with. (See Case 11, Table 7.)

Malaria, which is known to be associated with increased blood destruction, may show a high color index anemia with increased plasma pigments of the hemolytic type. Case 12, Table 7, shows how severe an anemia may be found in some cases.

TABLE 7

ANEMIAS ASSOCIATED WITH INFECTIOUS DISEASES

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	4.840	112	1.15	Delayed	1.1	Lobar Pneumonia.
2	3.200	60	0.95	Negative	0.4	Lobar Pneumonia.
3	.....	110	....	Prompt	1.5	Lobar Pneumonia.
4	4.170	76	0.91	Delayed	0.8	Broncho Pneumonia.
5	.....	75	....	Delayed	1.5	Acute Bronchitis.
6	4.360	63	0.72	Negative	0.3	Pulmonary Tuberculosis.
7	.....	..	....	Delayed	0.7	Pulmonary Tuberculosis.
8	3.200	54	0.83	Delayed	1.5	Typhoid.
9	.....	90	....	Delayed	1.0	Typhoid.
10	3.570	64	0.90	Delayed	0.6	Typhoid.
11	4.750	58	0.61	Negative	0.1	Acute Rheumatic Fever.
12	.480	15	1.57	Delayed	2.0	Aestivo-Autumnal Malaria.
13	4.400	70	0.80	Negative	0.4	Malaria convalescent.
14	1.992	58	1.45	Delayed	1.2	Sprue.

TABLE 8

HEMOLYTIC CONDITIONS

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	4.200	95	0.99	Delayed	1.1	Congenital Hemolytic Jaundice.
2	4.900	112	1.14	Delayed	12.4	Congenital Hemolytic Jaundice.
3	2.000	44	1.10	Delayed	2.7	Congenital Hemolytic Jaundice.
4	2.208	40	0.91	Delayed	0.5	Postpartum Anemia.
5	2.552	58	1.14	Delayed	1.3	Anemia following drinking bout.
6	4.800	..	....	Delayed	5.3	$HgCl_2$ Poisoning.

Chronic malaria or a convalescent from malaria may show a low color index anemia with normal pigments. (See Case 13, Table 7.)

Tropical sprue is recognized as having many features in common with pernicious anemia. In the case shown here the anemia was of the high color index type and the plasma pigments were increased.

Certain other conditions almost certainly accompanied by increased blood destruction are sometimes met with. It is well to bear in mind that these are not constantly accompanied by anemia. As long as the bone marrow is able to compensate for the increased blood destruction no anemia develops. Thus congenital hemolytic jaundice may give every evidence of increased blood destruction but only at times do the red count and hemoglobin decrease. (See Cases 1, 2 and 3, Table 8.)

TABLE 9

PERNICIOUS ANEMIA

Case No.	Red Corpuscles millions per cu. m.m.	Hemoglobin per cent	Color Index	Direct Diazo Reaction	Plasma Bilirubin mg. per 100 c.c.	Diagnosis
1	4.128	105	1.28	Delayed	1.1	Pernicious Anemia.
2	2.392	76	1.58	Delayed	0.8	Pernicious Anemia.
3	2.136	59	1.38	Delayed	1.0	Pernicious Anemia.
4	1.992	50	1.25	Delayed	2.2	Pernicious Anemia.
5	1.840	50	1.32	Delayed	1.2	Pernicious Anemia.
6	1.704	61	1.79	Delayed	1.1	Pernicious Anemia.
7	1.600	38	1.18	Delayed	1.8	Pernicious Anemia.
8	1.500	42	1.40	Delayed	2.0	Pernicious Anemia.
9	1.420	30	1.06	Delayed	1.7	Pernicious Anemia.
10	1.208	35	1.45	Delayed	2.2	Pernicious Anemia.
11	1.200	24	1.00	Delayed	1.5	Pernicious Anemia.
12	1.192	35	1.46	Delayed	2.0	Pernicious Anemia.
13	1.072	30	1.39	Delayed	2.3	Pernicious Anemia.
14	1.028	35	1.70	Delayed	2.0	Pernicious Anemia.
15	0.936	30	1.60	Delayed	3.3	Pernicious Anemia.
16	0.928	35	1.89	Delayed	1.0	Pernicious Anemia.
17	0.888	26	1.47	Delayed	1.0	Pernicious Anemia.
18	0.850	20	1.18	Delayed	1.3	Pernicious Anemia.
19	0.848	22	1.30	Delayed	3.4	Pernicious Anemia.
20	0.824	22	1.33	Delayed	1.0	Pernicious Anemia.
21	0.656	19	1.45	Delayed	1.9	Pernicious Anemia.
22	0.640	14	1.09	Delayed	1.0	Pernicious Anemia.
23	0.592	23	1.95	Delayed	1.9	Pernicious Anemia.
24	0.584	17	1.45	Delayed	2.3	Pernicious Anemia.
25	0.569	16	1.40	Delayed	2.5	Pernicious Anemia.
26	0.480	17	1.77	Delayed	4.0	Pernicious Anemia.
27	0.472	12	1.27	Delayed	2.8	Pernicious Anemia.
28	0.456	10	1.10	Delayed	2.5	Pernicious Anemia.

Case 4, Table 8, represents a hemolytic type of anemia developing after a drinking bout.

Case 5, Table 8, was a case of poisoning with bichloride of mercury in which hemoglobin could be seen in the plasma. There was also an increase in the plasma bilirubin of the hemolytic type.

The findings in twenty-eight cases of pernicious anemia are listed in Table 9. In the active stages of the disease we find a high color index anemia with increased plasma pigments, giving a delayed direct diazo reaction. There is no direct relationship between the degree of jaundice and the level of the red count of the different cases. If however we follow a given case over long periods of time it will be found that when the red count is falling the plasma pigments increase. During remissions the plasma bilirubin tends to return to normal levels. It is interesting to observe the effects of transfusion on the plasma pigments in pernicious anemia. Usually a distinct reduction in the plasma pigment is noted following the transfusion. This reduction is greater than could be accounted for on the basis of dilution of the patients plasma by the normal plasma. If no reduction in the level of plasma bilirubin follows the transfusion the results of that transfusion from a clinical point of view will usually be disappointing.

We have seen, therefore, that evidences of hemolysis are present not only in pernicious anemia, but also, to a somewhat lesser extent, in many of the common infections. In a study of bone marrow carried out by Dr. Peabody and myself it was found that phagocytosis of erythrocytes was a striking feature of the marrow of pernicious anemia. Phagocytosis was nevertheless found in other conditions, notably the infections such as pneumonia and typhoid. It seemed to us that this suggested that the processes taking place might well be highly similar. That a toxic substance might be at work stimulating the marrow to increased phagocytic activity, or that there might be present in the blood stream substances so injuring the erythrocytes that they are removed as no longer capable of proper function.

For discussion see page 127.

Anemia as a Factor in the Diseases of Internal Medicine*

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"A concise definition of anemia is evasive though we can recognize it as a clinical entity. In its broadest sense, anemia is an affection of the haemopoietic tissue of the bone marrow, or in some cases, possibly, merely a defect of hemoglobin formation" (Thursfield). The bone marrow may be disturbed by unknown toxins which act either by diminishing its reproductive powers or by destroying the products of bone marrow formation more quickly than they can be formed. The degree of anemia present in each case is dependent upon the quantity of the blood lost, either by hemorrhage or destruction, and upon the ability of the bone marrow to replace this blood loss.

Among the known etiological factors of this disease, may be mentioned foci of infection, prolonged malnutrition, unhygienic habits, over-exertion, mental and physical, particularly in unhealthy surroundings, such as stuffy rooms, unsanitary offices and buildings. Chronic anemic states are frequently encountered in hemorrhage from hemorrhoids, uterine disease and peptic ulcer; often associated with liver and kidney lesions, and with chronic diseases of the gastro-intestinal tract, whether organic or functional. It is met with in infections of all types, such as syphilis, tuberculosis, typhoid, malaria, intestinal parasites, or in acute or chronic suppurative processes, in intoxications from lead, arsenic, mercury, benzol and potassium chlorate. It occurs in pregnancy, prolonged lactation, neoplasms and in disturbances of the glands of internal secretion.

The common symptoms of anemia are pallor, faintness, dyspnoea, tachycardia, giddiness, loss of bodily and mental vigor, loss of weight, poor appetite, faulty digestion, palpitation, nausea and vomiting or even swelling of the feet. The severity and occurrence of these symptoms varies with the degree of anemia present. In general, it may be said that anemia exercises a deleterious effect upon all functions and organs of the body, and if untreated, it predisposes to the development of other pathological processes due to the reduction of resistance and immunity in each individual case.

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The ultimate accurate diagnosis of anemia must be made upon the results of an adequate blood examination. Blood examination is required in order to determine the presence of anemia, its severity, if present, and its improvement, if any, under treatment. With the large number of excellent laboratories and readily available technicians in the state, we are no longer justified in making a final diagnosis of anemia from the pallor of the cheeks and appearance of the mucous membranes of the patient. Each practitioner must adopt a definite routine of blood examination and must be familiar with all the proven methods of examination having to do with the determination of blood destruction and blood regeneration.

Anemia commonly occurs in malaria, typhoid, tuberculosis and syphilis. Ewing states that the majority of malignant neoplasms are associated throughout their course with progressive deterioration in the quantity and quality of the blood. Brown and Roth have demonstrated that high degrees of anemia in chronic glomerular nephritis indicate a definitely unfavorable prognosis, similar to the unfavorable prognosis associated with a high creatinin finding in these nephritic cases. Anemia develops readily in chronic arthritis, in gastro-intestinal diseases, and in the malnourished. Although we realize that an ultimate cure in many of these patients is not possible, we certainly are able to prolong their lives, render them more comfortable, and afford them a better chance of recovery by careful blood examination and subsequent individual treatment of any anemia present.

IN CARDIAC CASES

Anemia produces of itself definite effects upon the heart and for that reason care must be exercised in all cardiac cases to rule out the diagnosis of anemia, or to prevent the development of anemia in heart cases. Poynton says that it is easily understood that if a true anemia is neglected in organic heart disease, acute dilatation will readily follow imprudent exertion, and auricular fibrillation rapidly appear in mitral stenosis. Particular care must be taken to avoid the occurrence of an anemia in cases of rheumatic heart disease, or cases of aortic or mitral disease, particularly in adolescents.

Bear in mind, in the diagnosis of cardiac lesions, that heart lesions may be stimulated by the behavior of the heart in cases of anemia, particularly in children. In anemia, the pulse is soft and rapid, blood pressure lowered, heart's impulse feeble and there may be some cardiac dilatation. The first sound often becomes abrupt with or without reduplication. A soft or harsh systolic murmur is heard at the base, and with it is often found a systolic murmur at the apex with transmission toward the axilla. If the anemia is quite severe, a diastolic murmur can often be heard at the base of the heart. These findings, with a history of breathlessness upon exertion, certainly present the cardinal points for diagnosis of a cardiac lesion. It is remarkable to notice how quickly these cardiac findings of anemia disappear upon improvement of the patient's blood picture.

Syphilis, because of the protean nature of its manifestations, is a problem in anemia, for it is well known that the blood picture due to syphilis may simulate the blood findings of any of the anemias.

Dunham recently reported in a series of 261 cases of active pulmonary tuberculosis, that only 14% showed a hemoglobin of 90% or 4,800,000 erythrocytes or above. Most clinicians have observed that a simple anemia is present in the majority of cases of tuberculosis.

TREATMENT

The treatment of anemia must rest upon a rational basis with individual variations in each case. It must begin with a comprehensive investigation of the patient's habits and history, with correction of all unhygienic factors discovered. Treatment, which must begin at once, is usually prolonged and must start with complete rest, fresh air, plenty of sunlight, with an iron rich and vitamine adequate diet. Many of these patients improve more readily in a mildly tonic climate than they do in a cold one. The diet is based upon furnishing 60-65 calories per kilo of body weight per day, with proportions of protein 16%, fats 42% and carbohydrate 42%. Red meat and cooked liver have been frequently recommended because of their iron content.

G. O. Broun has added a new chapter to the physiology of exercise by experiments pointing to the probability that exercise stimulates the hemopoietic system to increased efficiency. Careful regulation of exercise is called for in these cases in order to avoid danger and damage from over-exercise.

There are many cases on record of improvement of anemias following the removal of foci of infec-

tion, such as are encountered in orla sepsis or diseased tonsils. Nevertheless, I am of the firm opinion that much damage is done, with no later demonstrable benefit, to many of these cases due to loss of blood, infection and injury attendant upon the removal of these foci.

Iron is used in various forms of anemia, and although it has been demonstrated as of no value in the experimental anemias of animals, its use is justified until more is learned of the intermediary iron metabolism. We now use routinely in all anemias, except pernicious anemia, the spleen-marrow extract of Leake, with excellent results.

Dunham has just reported the results of spleen-marrow administration to a second series of 23 cases of active pulmonary tuberculosis with anemia. He eliminated all possible sources of error and used each case as its own control. Using the rule of improvement of Leake and Evans, he states that in 91% of his series of cases, spleen-marrow definitely improved the anemia present.

Blood transfusion is widely used in the treatment of anemia but its use should be instituted early rather than late in the disease.

CONCLUSION

Earlier diagnosis, by more widespread utilization of methods of blood examination, is urged.

Treatment of anemia is to be instituted immediately in the endeavor to restore to normal the patients' immunity and resistance to subsequent pathological lesions.

For discussion see page 127.

Blood Transfusion in Puerperal Infections*

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Changes occur in the blood of normal pregnant women, which impair their powers of resistance to infections. The outstanding features of these changes are a drop in CO-2 combining power of the blood plasma to 45 volumes per cent as against 52 per cent in normal non-pregnant women.[1] The animal experimentation of Stander and Creadick on[2] "Blood Volume in Pregnancy," is suggestive. They have demonstrated in pregnant dogs, a reduction in total cell volume of blood, and a low cell volume reading per 100 gms. body weight, and conclude that there is an increase in the fluid content of the circulating blood. Moreover, the calcium and magnesium content of the blood is said to be low during pregnancy and for a few days following labor.[3]

Most of the comparable responses in nature are protective, and these may be, in some manner, at present unknown; nevertheless in the presence of an infection, the above factors can only be considered as deleterious to resistance.

The changes in the blood, which can be classified as assets, are a leucocytosis (12,000 average count) in the latter months of pregnancy.[4] A drop occurs in non-protein nitrogen to 28 mgms. and in urea nitrogen to 12.48 mgms. per 100 c.c. which in the normal are 32 mgms. and 18.5 mgms. respectively.[1] Threads connecting the erythrocytes, similar to those found in citrated blood, have been noted in the circulating blood in the latter months of pregnancy. They are said to be a gel of fibrinogen, and to effect hemagglutination and speed of sedimentation.[5]

Rarely, if ever, is there encountered so vicious and rapidly progressive a type of secondary anemia, as develops with post-partum infections. Its initiation and progress are favored by the pre-existing blood changes, in most instances unusually heavy labor, hemorrhage, trauma, and possible shock. The post-partum uterus is a splendid incubator filled with culture media. Add an organism (most commonly of the haemolytic type) and the cause of the anemia seems obvious; its development unescapable. All these factors may be present with normal pregnancy. If, in addition to these, be such complications of pregnancy as a pre-existing anemia, nephritis, diabetis, eclampsia, etc., the situation is greatly aggravated.

The competence, reserve power, or margin of safety, of an individual, is the collective reserve power of the component cells. This reserve, in turn, measures the capacity of the defensive mechanism of that particular individual. In the graver types of post-partum infection, the reserve power—therefore resistance—and the mechanism of defense, is greatly reduced; at times exhausted. Competence is determined by the ability of the organism to deliver oxygen, water, and food to the

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individual cells. Oxygen, water, and food are delivered only by the blood, and deliveries vary directly with the quality and quantity of blood, and the efficiency of the cardio-vascular system.

Predominating the clinical picture, in virtually all post-partum infections, is the pronounced anemia. Equally dominant, then, must be the therapeutic demands. Scarcely second in importance to anemia, is its concomitant—myocardial incompetence. Both demand immediate relief, and fortunately both are remediable by the same means. Prompt transfusions, with compatible whole blood, repeated daily or at least every 48 hours until the blood picture returns approximately to normal, or until clinical improvements forecast recovery, is the essential part of treatment.

ADVANTAGES OF WHOLE BLOOD

The advantages of whole blood, over the various modified types in common use, are many. According to some authorities, deleterious reactions (chills especially) occur in 50% of the transfusions with blood modified with sodium citrate.[6] In this class of patients, the proportion of reactions is probably even higher. A severe reaction, added to the burdens of these critically ill patients, frequently suffices to hasten, if not to cause, death. Patients profoundly toxic, as the result of infection, particularly when bacteriaemia is present, are prone to suffer post-transfusion reactions, unless great care is exercised. For this reason, transfusions with whole unmodified blood is the safest method, because they are followed by the fewest reactions.

In the selection of donors, blood grouping alone is not a sufficient safeguard. Mutual tests between cells, and sera of donor and recipient, must also be made. If the laboratory tests are accurately done, the blood carefully handled without air contact or unduly traumatized, multiple transfusions may be given without fear of bad results. The paraffined tube method of transfusion comes nearer meeting requirements than any so far devised. It is the method of choice.

Patients suffering from puerperal infection fall roughly into two classes:

(1) Those critically ill with high temperature, usually chills, and rapid pulse, with and without demonstrable bacteriaemia. The anemia is profound, the red blood count ranges from 1 to 2 million, the white blood count 2 to 8 thousand, and haemoglobin 18 to 30%. The temperature range is from subnormal to 108° F.; the pulse rate from 100 to 180.

(2) Those less seriously ill, anemia not pronounced; temperature not high; chills uncommon; and the pulse rate but moderately elevated. The red blood count in this group is usually 3 to 4 million; and the white blood count 8 to 12 thousand; haemoglobin 40 to 60%.

In group No. 1, transfusions usually multiple, are essential to save lives. Treatment must be prompt. It is of little avail to transfuse an individual in whom cell deterioration has progressed so far that their rehabilitation is no longer possible, or myocardial degeneration is so marked, that efficient blood delivery cannot be accomplished. If the individual cell is still viable, still capable of the utilization of oxygen and food, and the mechanism for its delivery still intact, recovery is possible. Too often transfusion is only used as a last resort, and then it is futile.

In group No. 2, procrastination is less serious. A majority of the patients in this group are destined to ultimate recovery, if treated with intelligent neglect, but it is just in this category that so much can be accomplished in the curtailment of durations and degrees of disability. The strife between defense and offense, is recorded on the temperature chart by daily temperature excursions from normal to 101 or 102° F., but the balance of power is for long intervals on the side of the disease. Anatomical and functional integrity, the chief objectives of modern medicine, are best conserved by speedy recovery. The damaging local and general effects of prolonged inflammatory processes, are too well known to need recording. Frequently these patients will struggle along for weeks making but little headway against the infection. Often a single blood transfusion will result in a readjustment of the balance of power, to the side of individual resistance, and recovery is established within a few days.

Anemia of the pernicious anemia type, developing during pregnancy and brought to an explosive climax following labor, may closely simulate infection, in its clinical aspects.

Patients, without infection, but with this type of anemia are often mistakenly considered as suffering from puerperal infection. The history of a slowly progressing anemia during pregnancy, systolic murmur, splenic and liver enlargement, con-

tinuous leucopenia, absence of evidence of infection and a blood picture of the pernicious anemia type establishes the diagnosis. The treatment is the same multiple blood transfusion.

CONCLUSIONS

Certain pre-existing blood changes tend to lower resistance of pregnant women against subsequent infection. The powers of resistance and defense are best restored by blood transfusion.

Unmodified blood, given by the paraffined tube method, is most suitable, and is virtually free from danger of deleterious reactions. In the graver types of infection, blood transfusions are essential to save lives. For patients less seriously ill, blood transfusions are needed to reduce disability, and to prevent sequela.

For discussion see page 127.

REFERENCES

1. H. J. Stander: "The Blood Chemistry During Pregnancy"—Bulletin of The Johns Hopkins Hospital, May, 1924, Vol. XXXV, p. 133.

2. H. J. Stander and A. N. Creadick: "Blood Volume in Pregnancy"—Bulletin of Johns Hopkins Hospital, January, 1924, Vol. XXXV, p. 1.

3. Plass and Bogert: "The Calcium and Magnesium Content of the Blood Serum During Pregnancy, Labor and the Puerperium"—American Journal Obs. & Gyn., October, 1923, p. 427.

4. A. Heyn: "Leucocytes in Pregnancy"—Zeitschrift für Geb. und Gynäkologie Stuttgart, June, 1924, p. 158.

5. Wöhlisch and Bohnen: "Microscopy of Blood in Pregnancy"—Klinische Wochenschrift, Berlin, May, 1924, p. 472.

6. R. E. Stetson: "The Therapeutic Value of Blood Transfusion"—American Journal of Medical Sciences, Oct., 1924, p. 534.

Significance and Treatment of Anemia in Surgical Patients*

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Individuals fall into two classes, those capable and those incapable of bearing the extra burdens of operations. The first are competent, the others incompetent; competence being the capacity of the individual to develop energies in excess of those necessary to sustain inactive life. Energy is produced by the activity of cells through the oxidation of food. Stored food constitutes a reserve of potential energy. The amount of this potential energy together with the ability of the cells to activate it is the measure of competence. Cell structure determines metabolism and the product of metabolism is function. Collective cell function is the individual's power of resistance, defense, and repair. Altered cell structure reduces resistance, lowers defense, and lessens repair.

There are five causes of abnormal cell structure aside from gross injury: inherent subnormal development, toxemia, deficient nutrition, fatigue, and anemia. Toxemia may be due to infection or perverted activity of cells. Anemia is caused by an insufficient blood production, increased blood destruction, or a combination of the two. Inadequate hematopoiesis may be inherent or due to toxemia or faulty nutrition. Fatigue will be added when excessive demands upon the blood forming cells are prolonged. Increased blood destruction occurs through toxemia or loss of blood by hemorrhage.

Blood carries oxygen, water, food, and salts, all of which are necessary for metabolism. A deficient blood, whether in amount or quality, tends to change cell structure. Diminished oxygen prevents utilization of food. The proteolytic ferments in cells become active, cell protein is broken down, and the acid balance betwen cytoplasm and nucleus is destroyed. The products of incomplete oxidation are in part acids. These while in the cytoplasm inhibit activity, for if the cells are to function the nucleus must maintain a higher hydrogen ion concentration than the cytoplasm. When these acids enter the blood stream they combine with the buffer salts, thereby decreasing the alkali reserve. Acidosis is imminent in anemic patients.

Blood may also be deficient in platelets or fibrin forming elements. Hemophilia, jaundice, and purpura present operative difficulties because of the prolonged bleeding or clotting time.

Anemia, by impairing nutrition and thus lowering the resistance to toxemia, is one of the foremost factors in producing abnormal cell structure. Since function depends upon structure, competence of individuals fluctuates with the quality and quantity of blood delivered to cells.

The myocardium shares in the universal functional impairment of anemia. Nevertheless the

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heart attempts to supply greater blood volume to body cells to compensate for the lowered oxygen carrying power of the blood. This double load of increased demands and decreased nutrition produces a myocardium weakened, proportionately, more than other organs. Circulation depends upon cardiac power as well as sufficient blood volume. Lessened myocardial power through inadequate blood delivery augments the pre-existing anemia of cells.

TWO TYPES

Anemia is divided into two types: acute and chronic. Acute anemia is due to hemorrhage. The primary result is a decrease in blood volume which, unless shock occurs, is partially compensated for by the removal of fluid from the tissues. Structural changes are slight until the reserve of potential energy is exhausted. The initial need is for a restoration of blood volume.

Exemia, or shock, is an acute functional anemia which may or may not be associated with hemorrhage. There may be no loss of blood from the body. The hemoglobin and red cell count are unusually high due to the stagnation of blood in the capillaries and the loss of plasma through capillary walls. Body cells, however, are not supplied with oxygen for blood volume is reduced through loss of plasma so that adequate circulation is impossible. Plasma leaves the blood stream in proportion to the duration and degree of shock.

Chronic anemia means fatigue of the hematopoietic system and a starvation of cells through diminished oxidation.

The incompetence of these patients is commensurate with the duration and severity of their anemia.

The preparation of anemic patients for operation is a matter of raising competence. This can be done only by rest and the supplying of food and oxygen in ample quantities to cells.

Rest of external bodily activity means decreasing the load on all cells. Less energy must be expended so more can be stored. Rest in bed removes a heavy burden from the myocardium.

Undernourished cells cannot benefit by rest, however, when proper nutrition is denied them. Normal cell structure cannot be restored without adequate oxidation, nor can it be repaired in hours or even days. The anemia must be corrected and time allowed for the rebuilding of competence.

High caloric diet with ample protein percentage and large fluid intake are essential for the treatment of anemia. An extract of spleen and bone marrow has proven efficacious in stimulating hematopoiesis. Sunshine and fresh air are indispensable. A large carbohydrate consumption will supply food readily convertible into energy, and allow of storage for the immediate post-operative period. When ample food and fluid cannot be taken by mouth, glucose intravenously offers an excellent means of supplying an easily assimilable form of nutriment. A ten per cent solution, with the addition of insulin, is preferable. One unit of insulin to three grams of glucose affords maximum utilization of the carbohydrate with no danger of hypoglycemia. When nothing can be taken by mouth, 3000 c.c. of ten per cent glucose every twenty-four hours is sufficient for the average weight adult. An ample supply of carbohydrate, together with complete oxidation, raises the lowered alkali reserve and decreases the danger of post-operative acidosis.

Notwithstanding these measures, myocardial incompetence may still exist. Digitalization, to the physiologic limit, during the two days prior to operation saves lives. The brake that digitalis puts upon the rate of cardiac activity enables the heart to carry the extra burden without exhaustion.

Moderately anemic patients will respond to such treatment with an increase in competence sufficient to carry them through the operative period.

SEVERE ANEMIA

Severe anemia presents a different problem. Cell structure has been markedly altered, fatigue is decided, and the blood forming cells may almost have reached the point of exhaustion. Stimulation of the hematopoetic system is not only useless but harmful for there is no longer energy for a response. Immediate rest is demanded. The only means of satisfying such a demand is by blood transfusion. Transfusion in many cases must be repeated every two to five days until the blood picture reaches the normal. Oxygen carrying power is increased, blood volume is augmented, nutrition again becomes adequate, cell structure is soon restored, and the patient regains competence.

The blood volume in acute anemia might be restored by forcing fluids or by giving saline intravenously. These measures, however, do not increase the oxygen carrying power and there remains the danger of shock. To guard against

such a disaster blood transfusion should be done with all acute anemias of even moderate severity.

The blood volume in examia cannot be restored by isotonic saline. The saline leaves the blood stream through the capillary walls and is rapidly excreted by the kidneys. A solution of glucose and gum acacia remains in circulation longer but eventually meets the same fate. Whole blood, by increasing oxygen carrying power as well as blood volume, reestablishes blood pressure and adequate circulation. This is true only if transfusion is done early in shock. When exemia has existed for hours, and systolic pressure has been below eighty for as much as six hours, all methods of treatment usually fail.

Regardless of the type or cause of anemia whole blood transfusion is the quickest, safest, and most certain method of treatment.

When operating upon those patients whose competence is low every protection should be afforded. Gentle handling of tissues together with proper hemostasis decreases mortality. Ether anesthesia, because it lowers the oxygen carrying power of blood, is contra-indicated. Nitrous oxide and ethylene are preferable provided the ration of either to oxygen is never more than three to one. Abdominal surgery can be done with such a ratio only by the additional use of novocain locally. Ethylene is superior to nitrous oxide in that relaxation occurs with higher oxygen percentage. When local novocain anesthesia can properly be conducted it is far less injurious than any general anesthetic.

The post-operative treatment presents no especial problems except that all needs are intensified. Fluid and a readily assimilable source of energy are of paramount importance. Both of these can be supplied by glucose intravenously, five to ten hours after operation. Usually after that time sufficient nourishment can be taken by mouth. If this be not the case, the glucose should be continued. Thus competence is not only raised before operation but maintained during and after operation.

Such treatment of anemic patients will decrease the operative mortalities.

SUMMARY

Anemic patients have decreased powers of resistance, defense and repair. This decrease is due to altered cell structure from inadequate oxidation and nutrition. Restoration of normal cell structure by correcting the anemia, raises competence and makes a wider margin of safety. Anemia may be corrected by rest and diet but normal blood quality and quantity can be most rapidly restored by whole blood transfusion.

Note: One c.c. of tincture of digitalis for every ten pounds weight of patient is necessary to produce the complete physiologic effect. 1.4 c.c. must be added for every day elapsed to compensate for the amount eliminated.

For discussion see page 127.

Preservation of Blood for Transfusion*

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Transfusion of blood is the one means to a prompt relief of profound anemia, whether it be of long standing, or the result of spontaneous, accidental or operative hemorrhage. Transfusions are also the most dependable means to relieve the exemia of profound shock. Transfusion of unmodified blood obtained from a suitable donor is the method of choice whenever practicable. Demands for blood to save the lives of patients suffering from acute anemia and grave exemia are usually abrupt, unexpected and urgent. Donors, as a rule, are not to be obtained without delay. Hence the need of methods for preserving and storing blood so as to provide adequate and immediately available supplies of blood that will meet the requirements for emergency transfusions. Should the same blood be useful to some extent in combating chronic anemias, it could be carried to patients who would otherwise be denied those advantages.

Preserved blood would be particularly helpful in military surgery. During the recent war donors were seldom available in sufficient numbers, especially during periods of active fighting, when they were most needed. Moreover, the time consumed in performing transfusions and the short-

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age of trained medical officers further reduced the number of transfusions it was possible to give. Many lives were lost in consequence.

Robertson demonstrated that blood could be obtained, preserved, stored, and its group determined before an attack and be ready for use as the wounded arrived. Weil had previously reported transfusions with citrated human blood that had been kept in the cold for several days. He used one part of a 1:10 solution of sodium citrate in water to ten parts of blood. Lewisohn found this concentration of sodium citrate not only dangerously toxic to recipients but produced hemolysis of the preserved human corpuscles within a week. Rous and Turner preserved three volumes of blood in a solution containing two volumes of 3.8% sodium citrate and five volumes of 5.4% dextrose. These proportions of sodium citrate and dextrose are isotonic with blood plasma, and in the final mixture the concentration is sodium citrate 0.76% and glucose 2.7%. The red cells so preserved remain intact and maintain their viability for weeks. Robertson employed the method of Rous and Turner.

The difficulty of storing human blood for intervals of more than a few hours without liability to hemolysis led to attempts to substitute other anti-coagulants for sodium citrate. The effects of sodium citrate, sodium sulphate, lithium citrate and heparin were studied.

Solutions of anti-coagulant and of dextrose were made, autoclaved separately, and mixed in desired proportions just before use. Freshly distilled water was utilized for all solutions. The blood (one volume) was drawn aseptically, placed immediately in the preservative fluid (two volumes), thoroughly mixed by rotating the flask, distributed in convenient amounts in test tubes and stored in an icebox. Paraffin-lined containers were employed for mixing and storing the blood. Rough handling was avoided. Specimens of blood, which had been added to the different mixtures composed of varying amounts of the same preservatives, were examined repeatedly. Macroscopic examinations were made to determine whether coagulation, agglutination or hemolysis occurred. Stained dry and fresh moist preparations were studied microscopically to determine shape, color, presence of ghost cells and staining quality of the cells.

The results were as follows:

Sodium citrate and dextrose—0.75% sodium citrate with 2.5% dextrose prevented coagulation and checked hemolysis for a period of three weeks; 2-2.5% dextrose with 0.75% sodium citrate gave the best results of any sodium citrate mixtures studied. Larger quantities of dextrose (3%) caused some hemolysis.

Sodium sulphate and dextrose — 1% sodium sulphate and 2.5% dextrose gave better results than any other concentration of sodium sulphate with dextrose.

Heparin—heparin in amounts as small as 1 milligram to 5 c.c. of blood showed definite hemolysis in three days; in seven days the supernatant fluid was colored throughout. Larger amounts of heparin increased the speed of hemolysis.

Lithium citrate and dextrose—blood preserved 45 days with 0.75% lithium citrate and 2.5% dextrose was free from clots. There was no hemolysis.

Examination of stained and moist preparations indicated that the solution of lithium citrate (0.75%) and dextrose (2.5%) was the best preservative fluid. Immediate examination of all the preparations of preserved blood showed pronounced crenation, which persisted. However, when the supernatant fluid was replaced with 5% glucose, the cells resumed their original shape. Cells, preserved with 0.75% lithium citrate and 2.5% dextrose for 42 days, were taken up in 5% dextrose, and, after standing for one hour at room temperature, 85 degrees F., there was no hemolysis.

The series of experiments extended over a period of eight months. Repeated determinations were made, and a wide range of concentrations of each of the four anti-coagulants named was tested with varying concentrations of dextrose. A solution of lithium citrate and dextrose (final concentration in the blood-citrate-dextrose mixture 0.75% lithium citrate and 2.5% dextrose) proved to be the most satisfactory.

It was essential to determine whether the four blood groups differed in their reaction to the preservative fluid. Blood was drawn from individuals in each of the four groups (Moss classification): one of group I, two of group II, three of group III, and two of group IV, and preserved in a solution containing 0.75% lithium citrate and

2.5% dextrose for a period of 45 days. At the end of that time the mixtures were still fluid; there was no hemolysis; and stained smears failed to show any difference in the four groups in their physical reaction toward this particular preservative.

The specific function of red blood cells is to carry oxygen. Oxygen-combining power determinations, according to the method of Van Slyke (1918), were made on whole blood and on preserved blood with lithium citrate and dextrose. The results are indicated in Table No. 1.

TABLE I

Whole blood	17.91 c.c.
Preserved blood after the supernatant fluid was removed, and restoring the blood to its original volume—	
Immediately after	17.91 c.c.
After 2 days	17.61 c.c.
After 7 days	17.64 c.c.
After 14 days	17.62 c.c.
After 21 days	17.66 c.c.
After 28 days	17.67 c.c.

OXYGEN-CARRYING POWER

Oxygen-carrying power determinations were then made on the blood from individuals in each of the four groups (a) blood preserved with lithium citrate and dextrose, (b) blood preserved with sodium citrate and dextrose. See Table II.

TABLE II

Group	Whole Blood	Preserved Blood	Preserved Blood One Week	Preserved Blood Two Weeks	Preserved Blood Three Weeks	Preserved Blood Four Weeks
I.	19.93	a. 19.93	20.0	20.14	20.0	20.0
		b. 19.24	18.9	19.0	19.0	19.0
II.	17.64	a. 17.64	17.45	17.5	17.49	17.22
		b. 17.64	16.59	14.44	13.9	9.57
III.	20.52	a. 20.52	20.34	20.4	20.4	20.3
		b. 20.52	19.47	19.7	17.08	17.0
IV.	17.56	a. 17.56	17.26	17.2	17.2	17.1
		b. 17.56	16.02	14.2	11.3	10.48

These determinations substantiate the evidence of the earlier observations that, from the standpoint of preservation, lithium citrate is preferable to sodium citrate.

The next step was to determine the toxicity of lithium citrate. Rabbits were bled and immediately transfused with amounts of cells, obtained from other rabbits and preserved with lithium citrate, equal in volume to that lost in bleeding. No deleterious effect was noticed. Later rabbits were injected with (a) the supernatant fluid from human blood preserved with lithium citrate and dextrose which had been kept four weeks, and (b) preserved human cells which had been kept four weeks. Again there was no evidence of a reaction.

Following the work with rabbits, 50 c.c. of 2.5% lithium citrate (50 c.c. of 2.5% sodium citrate is used for 500 c.c. of blood in the ordinary citrate transfusion) was given intravenously with 1,000 c.c. of 10% glucose to two patients without any subsequent reaction. Lithium citrate was then substituted for sodium citrate in giving citrated blood transfusions to patients, again with no deleterious reactions. Lithium citrate proved to be less toxic than sodium citrate when employed in this way.

APPLICATION

Three individuals then received the preserved blood. One (group I), suffering from chronic nephritis and moderately severe anemia, received the cells equivalent in number to those contained in 500 c.c. of group IV blood which had been preserved for a week. Some hours after the transfusion he complained of slight chilliness, but there was no increase in temperature and no hemoglobin was found in the urine. As a result of the transfusion, the patient's red cell count was increased from 3,000,000 to 4,000,000. Four weeks after the transfusion virtually all the transfused cells were still present in his circulation. This was determined by the method of Winifred Ashby (1919). See Table III.

The second patient (group II), having pernicious anemia, had already received eighty transfusions and was prone to severe febrile reactions when given blood treated with sodium citrate. He received the equivalent to 50 c.c. of group II blood every second day for four transfusions and then the equivalent of 100 c.c. every second day for three transfusions. The last blood given had been preserved sixteen days. This was followed by three transfusions of 200 c.c. of group II blood every second day. The last blood in this series had been preserved for one week. There was no reaction either during or following any of these transfusions and specimens of urine showed no hemoglobin.

Subsequently, 600 c.c. of group II blood was preserved with lithium citrate (0.75%) and glucose (2.5%). On the second, fourth, seventh

TABLE III

Date	U. C. C.[1]		Date	R. B. C.
6/24/25	98,000			
6/25/25	62,000		6/25/25	3,140,000
6/26/25	62,000	before transfusion		
6/26/25[2]	404,000	after transfusion		4,110,000
6/27/25	309,000			
6/29/25	280,000			
7/ 1/25	233,200			
7/ 3/25	238,100			
7/ 6/25	244,100		7/ 6/25	4,440,000
7/ 7/25	280,200			
			7/11/25	3,830,000
			7/14/25	3,500,000
7/15/25	218,900			
7/21/25	245,300		7/21/25	3,730,000
7/27/25	215,100		7/27/25	3,570,000
7/30/25	215,500		7/30/25	3,440,000
8/ 3/25	202,400		8/ 3/25	2,980,000
8/ 7/25	170,500		8/ 7/25	2,870,000
8/11/25[3]	283,700		8/11/25[3]	3,950,000
				-3,790,000
8/14/25	199,300		8/14/25	3,450,000
8/17/25[3]	268,000		8/17/25[3]	4,435,000
8/31/25	198,900		8/31/25	3,810,000

[1]Unagglutinated cell count.

[2]This count was made immediately after the transfusion before the cells had become equally distributed throughout the body.

[3]The patient had a marked edema which varied in amount from day to day, causing a variation in the blood volume.

and ninth days thereafter this patient received the equivalents to 100 c.c. of blood without reaction. On the twelfth day after preservation, the last blood in this series (the equivalent to 200 c.c.) was given. No reaction followed.

Two days later 600 c.c. of blood was taken from each of two group II donors and treated as before. On the second, fifth and seventh days thereafter the patient received the equivalents to 400 c.c. of whole blood, the first lot from one donor, the second from the other, and the third consisting of equal amounts from both donors. There was no reaction at any time.

Experience with this man, who was far from robust and was peculiarly liable to chills following the giving of blood treated with sodium citrate, gave basis for a belief that blood preserved with lithium citrate and dextrose would be very much less dangerous.

Consequently, another patient (group II), very much reduced by a long illness resulting from an infected compound fracture of the femur, was given a much needed transfusion. He received an amount of cells equivalent to 500 c.c. of unmodified blood. A chill began at the end of transfusion and lasted about an hour; there was a sharp rise in temperature. Twelve hours later the patient was comfortable and in good condition. Six hours later another chill with rise in temperature occurred. Thereafter the patient became weaker and died. Specimens of urine examined showed no hemoglobin.

Death here is attributable to the citrate. The patient was very weak and was intolerant of even a small amount of relatively harmless substance. Similar catastrophies have followed transfusions by the sodium citrate method.

In order to be certain that no injurious constituents were present, portions of the cells and the supernatant fluid from the same lot of blood were injected into animals and caused no reaction.

The method of transfusion with preserved blood is simple, but definite precautions must be observed or the blood will undergo changes while outside the body which may render it toxic. Blood is exceedingly vulnerable and must be handled accordingly. The chief consideration is to transfer the blood quickly, gently, and cleanly into the preservative fluid so that coagulation changes, which begin the instant the blood leaves its vessel, may be stopped as soon as possible. This will check the formation of fibrin and development of fibrinoplastic substances which become progressively harmful the more nearly they approach fibrin.

METHODS

The blood for preservation is collected in a paraffin-lined Kimpton tube. The passage from the vein to the receiving vessel should be of large diameter, as short as convenient, and absolutely clean, because, with unsuitable apparatus, clotting may occur in the collecting system to such an extent that the blood undergoes considerable change. The blood is mixed immediately with double its volume of the preservative fluid; placed in straight-walled, large-mouthed containers, and stored in an icebox. Strict aseptic precautions must be observed throughout. In preparing the preservative fluid, a 1.8% lithium citrate solution and a 10% dextrose solution are made with freshly distilled water, autoclaved separately and mixed just before use. Three volumes of dextrose solution, four volumes of blood, and five volumes of lithium

citrate solution are used. For 500 c.c. of blood, 375 c.c. of 10% dextrose and 625 c.c. of 1.8% lithium citrate are required. The final concentration of the dextrose-blood-citrate mixture is 2.5% dextrose and 0.75% lithium citrate. Paraffin-lined containers are used throughout. The red cells will settle at the bottom of the vessel in twenty-four to thirty-six hours; the supernatant fluid is slightly opaque and yellowish to yellow-green if the plasma is highly colored. A pink tinge to the supernatant fluid indicates hemolysis, probably caused by infection, and the blood must be discarded.

When preserved blood is to be used, the supernatant fluid is removed through a tube as completely as possible by gentle suction. Sufficient 5% dextrose to restore the cells to their original volume is added gently. The blood cells should not be poured when in a suspension more concentrated than normal blood as this tends to break up the cells. The cell-dextrose suspension is gently agitated with a rotary motion and poured through two layers of sterile gauze. The filtering is necessary as occasional small clumps form during sedimentation and this precaution assures a uniform suspension of cells. The cell suspension is then warmed to body temperature and given by any convenient method.

The criticism has been raised that blood deprived of its plasma cannot be as effective a restorative of blood volume defects as whole blood. In the exemia of shock, plasma is a valuable part of the transfused blood. However, in acute anemia as a result of hemorrhage Abel (1914) has shown that the addition of red cells alone is probably sufficient. From a biologic point of view, preserved blood has been altered by physical and chemical changes brought about by the preservative fluid and by its sojourn outside the blood vessels. Whole blood, on the other hand, is received by the patient in an almost unchanged condition. For diseases in which the transfusion of blood is indicated for itself, viz., where it is actually required as a tissue as in various chronic anemias, blood diseases and infections, there is no question as to the superiority of whole unmodified blood for transfusions. In exemia of shock and acute anemia of hemorrhage, in which the purpose is to increase the oxygen-carrying power of the circulation, the preserved blood is the best available substitute for whole blood in transfusions. Its actual value is as yet undetermined.

SUMMARY

It is possible to preserve living human red cells for several weeks in a solution of lithium citrate and dextrose. The citrate and dextrose solutions should be made from chemically pure lithium citrate and dextrose with freshly distilled water, prepared and sterilized separately, and mixed just before using. The blood should be handled as quickly and as gently as possible. All manipulations should be carried out with aseptic precautions; all containers used in the collection, mixing and storing of the blood should be coated with paraffin.

Transfusions of preserved blood offer means to meet the requirements of emergencies arising with shock and with hemorrhage because supplies can be made constantly available. Preserved blood, because of its unimpaired oxygen-carrying capacity, is superior to purely artificial solutions that can only increase the volume of blood in circulation. Preserved blood is of less value in treating chronic maladies than whole blood, but it may prove to be more dependable than other methods of treatment.

This work is still in a developmental stage. More data, dealing with the actual transfusion of preserved blood, must be obtained to determine the possibilities, the limitations and the dangers arising from the use of preserved blood before it can be recommended for use except as an emergency measure.

BIBLIOGRAPHY

Abel, J. J.: Jour. Pharmacol. & Exp. Therap., 1914, V, 625.

Rowntree, L. G.: Ibid.

Turner, B. B.: Ibid.

Ashby, Winifred: Jour. Exp. Med., 1919, XXIX, 267-281.

Lewisohn, R.: Surg. Gynec. & Obst., 1919, XXI, 37.

Robertson, O. H.: Brit. Med. Jour., 1918, (Jan.-June,) 691-695.

Rous, P.: Jour. Exp. Med., 1916, XXIII, 219-239.

Turner, J. R.: Ibid.

Weil, R.: Jour. A. M. A., 1915, LXIV, 425.

DISCUSSION

President Cunningham: The discussion of these papers will be opened by Dr. Joseph L. Miller, of Chicago. Dr. Miller is a man of personal attainments, a given authority to speak on any subject bearing on resistance, defense and immunity. I know we will be very glad to hear from Dr. Miller. (Applause.)

Dr. Joseph Miller: Dr. Cunningham has painted me as

a very versatile individual; I am not. I have been very much interested in your program, and it seems to me your Program Committee deserves a great deal of credit. I have always thought in any symposium the pathologist and physiologist should have a place, because, after all, medicine is merely a biological science, or will be some day when the biologists or the men of biological science have explained all the normal phenomena which go on in the individual.

I hope sometime we will see that our teaching hospitals have as active members of their staff the professor of pathology and the professor of physiology. Not only will the pathologist and the physiologist then come in contact with clinical medicine and become more efficient teachers for the medical student, but they can well serve often as consultants for the clinician. Their knowledge of these fundamental branches should render them of great assistance to the clinician in certain conditions. We always think of Osler as being the idol of the internist in this country, and when we look back through Osler's life, I think perhaps we can see some of the reasons for this. After his internship and a short period abroad where he studied physiology, he came back to McGill and was given the chair of medicine, which consisted of pathology and physiology. For many years he devoted himself to this line of work with a moderate amount of contact with clinical patients.

Years of study in the autopsy room and years of teaching students his physiology and pathology gave him that wonderful qualification for understanding clinical medicine which it seems to me is almost impossible without a foundation of that sort. It is true he came out of this and was considered thirty years ago as a therapeutic nihilist. We do not look upon the late Dr. Osler as a therapeutic nihilist any more. We have come to adopt his views. If he was a therapeutic nihilist, it was simply based on what he saw and what he knew of normal physiology, evidence that repair of injured or diseased tissue is impossible by any sort of chemical agent which you might administer to the individual.

So I think it is very interesting and very important that these men of the fundamental sciences should present a symposium of this sort. I am very much interested in Dr. Leake's work. I think he has undertaken one of the most interesting problems in therapeutics that I know, that is to draw conclusions in regard to value of treatment in anemia.

I recall thirty years ago Eichhorn made the statement that there were sixteen different remedies for the cure of pernicious anemia, and I think time has added a considerably larger number. The physician who is so unfortunate as to start to treat a pernicious anemia just before that patient has a period of spontaneous improvement becomes a great optimist, and that usually lasts until he sees his second case, and then his optimism is changed. I well recall an early experience I had in medicine, a very severe pernicious anemia case. I gave him Fowler's solution and told him to start with two drops and go until he got up to eight or ten drops. This was in October. In December I saw him again for the second time. I didn't recognize him, he certainly looked fine. He said, "Doctor, that was great medicine you gave me. I took one dose and it made me sick. I never took any more, but from that day on I started to improve." (Laughter.)

We have a big problem when we come to discuss the effect of treatment on secondary anemias. First of all, the term secondary anemia shows there is some primary cause. Of course, in all cases we attempt to remove the primary cause. Then there remains only that group in which the primary cause can not be detected where we can use drugs. In taking such a group (and Dr. Leake has carried this out very carefully) it is necessary to take such a patient where you can't find a primary cause and perhaps by correcting diet, correcting constipation, correcting habits of living, and so on, keeping that patient under observation for two or three months to make sure that you haven't removed the primary cause by these corrections, you can help him. This patient should have repeated blood examinations. If during this two or three months of observation he seems to have reached a certain stable place with his blood, then that patient becomes a fit subject to try some remedial agent. You keep him in exactly the same manner of living as he was in the previous two months and you apply your remedial agent. Then if you get results, and then if these results can be repeated, as you say, hundreds of times, because the element of chance is a very curious thing, and you are able to confirm them, then I think you are in a position to say that you have a real remedial agent.

This work of Dr. Leake's is done in a perfectly wonderful fashion. I think he needs a lot more cases. Just to show how misleading statistics can be, I will relate a little instance that occurred. We have at the county hospital in Chicago splendid opportunities to study. We have eight male medical wards and we will average in each of those medical services about 100 pneumonias during the winter months in each series, so it becomes possible to take your service and treat all your patients by a particular method and then use the other seven wards as a control. We have done that on several occasions.

Several years ago when quinine urea was so highly recommended in the treatment of pneumonia, we treated every patient with that. That is, if the patient died within an hour after he came in, he was counted as one that was treated, which should be the case, because we were comparing our results with results of other wards. When we had treated eighty patients we compared our results with those in the other services and found out, I think, that we had a mortality of twenty-two and one-half per cent, and they had a mortality of twenty-two per cent.

This was the interesting thing: in going over those different services, service by service, I found one service that had a mortality of only eleven per cent. Now, if by any chance, I had had that service and I had given quinine urea, it would have been very difficult ever to convince me that I didn't accomplish something. So that element of chance that enters into statistics is very important. Really, it is perfectly astounding how many cases we have to observe, how many different observers must make practically the same observation before we feel secure in what we have found.

This is not in any way a discouragement of Dr. Leake's work, far from it. I think it is a fine piece of work, and I think he has carried it out in a wonderful manner. I only mention these things as showing some of the difficulties a person meets with when he attempts to draw conclusions in the treatment of his secondary anemias.

Dr. Broun's work, I think, is very interesting fundamentally. I mean it is a comparatively ready means of determining the presence of blood pigment in the blood. This not only throws light on the character of the anemia, whether it is malignant, or whether it is dependent upon poor function, but it should enable us to follow out in the hemolytic types the effects of treatment. It gives us now some basis of determination beside a mere blood count of what is really going on in the individual, whether by treatment we are able to reduce the blood hemolysis or not.

Dr. Egan has reviewed in a very careful and very interesting manner the routine treatment of anemia.

When we come, however, to the question of transfusion in infection and transfusion as a pre operative method, except when indicated by the presence of anemia, I must confess I become a doubter. Dr. Osler in one of his addresses made this very trite statement: "In the treatment we have the placid faith of the believer rather than the fighting, aggressive faith of the doubter, which has been our besetting sin." I think it is. I mean we are all likely to believe we are helping the patient. We don't like to feel that we haven't certain power, we don't like to call it supernatural, we would like to have the feeling that we have a little more power than the ordinary layman. So I think we are very prone sometimes to think that we are getting results from what we do rather than from what occurs naturally.

In the process of evolution there was no provision made, apparently, for the doctor, because every organism makes a mechanism, not only for fighting its external enemies, but the internal enemies, and this mechanism of protection against disease is one of the most marvelous things we know. The more you look into it, the more astounded you are. All the immunologist has done is study what nature does and then make an attempt to improve it. So I think oftentimes at the bedside the position of the physician can be that of a keen and alert observer, because he is observing in this fight that goes on between the disease and the invading organism in case of infection. He is watching the mechanism acting which is the work of the Master. I think we ought to be very careful how we meddle. We are always on the line waiting to see if we can help out.

It was not many years ago that we thought every field should be attacked. It was only after the immunologist showed us the favor and gave us possession of immune bodies that we gave up our efforts to fight fever. We don't fight our typhoids unless they get in the nature of a hyper fever.

I don't believe we have any good evidence that transfusion is of any great value in fighting infection, even if we have a patient with sepsis and take an individual and immunize that individual, or give him repeated injections of the micro organism, which the individual is infected with so as to produce immune bodies, and then transfuse. This method was recommended by Wright, still we find results are almost negligible.

There is no doubt but that the normal individual has some non-specific immune bodies, but to transfuse simply because a patient has an infection I think is something that must be looked upon with some skepticism and I shall be interested to see how long it lives. In pre-operative transfusions I think there is one indication. There is a great wave at the present time of transfusion. We meet it on every hand. There is a very interesting article in the last Journal of the American Medical Sciences, I believe, by Baldwin, of Columbus, Ohio, in which he has taken up the question of transfusion and calls attention to the fact that thirty years ago, forty years ago there was a wave of transfusion that swept over the country, and it became so marked and advanced that the government put a stop to it until the Academy of Medicine could pass upon its efficiency. He was writing to the surgeons throughout the country asking their opinion. He has in the article their opinions as to the value of transfusion as a preoperative measure and the value of transfusion for infections, and it is very interesting. The replies that he gets are almost unanimous that the indication for transfusion is still anemia and practically nothing else.

I think this work of Miss Perry's is very interesting. It seems to me that is a fine example of a piece of investigation carried out under proper controls and apparently stopping up every possible loophole of mistake. Not only is it a fine piece of work, but it is a piece of work that has a very distinct practical bearing. It is something that we can all use.

I have enjoyed very much being with you here today, and I certainly want to say, one thing that pleases me quite as much as anything else is that you have seen fit to put on your program individuals who are not actively engaged in clinical medicine and who can give you very valuable information, which we as clinicians do not possess, and can give us not only real help in our problems but can perhaps help us in thinking straight, something that we all need, I think. (Applause.)

President Cunningham: These papers are now open for further discussion.

Dr. T. L. Szlapka (Milwaukee): Mr. Chairman, I think that these papers bring out certain points, of course, which are of great interest, and I think in looking at anemias we should be especially anxious to avoid so narrowing our interests that we see only the anemia and our field of vision becomes too narrow so that we fail to see the things which surround or produce the anemia. I was very happy to hear Dr. Miller's remarks, sounding a word of some warning against over enthusiasm in the use of transfusions.

I feel, however, that the diagrams, the charts which were shown in the use of transfusions, for instance, in pernicious anemia, showing the curve of the plasma bilirubin, show that we do obtain something very definite with transfusions, at least in that condition. While it may be that we do not prolong the life of our pernicious anemia cases, I believe that it is quite certain that we at least make these patients more useful, they at least get a period of time during which they can attend to their business or they can live happily, although eventually, of course, the outcome is the same.

The reference which Dr. Leake made to achylia in pernicious anemia I think may lead to some interesting work in the following of the achylia in families in which pernicious anemia has occurred. There is no real evidence to show that pernicious anemia is a hereditary disease, but a certain amount of work has lately been undertaken in which there is a very strong suggestion that there is some peculiarity in families which predisposes their members to this disease. It would be a very interesting thing to see whether in certain families there is present achylia. I think that suggestion Dr. Leake made of perhaps starting with the use of hydrochloric acid as a preventive measure could at least be tried, although it might not promise anything.

In connection with the use of whole blood or citrate transfusions, I tread with fear on this point, because I know that convictions run very strong one way or another in this matter. I believe that in hemorrhagic cases and in cases of sepsis, if we are going to use transfusions to change the blood, that is one of the various methods of using whole blood, that method is preferable. However, I still believe that citrate method has its field and a very large one, and in most cases of anemia that the citrate method will fulfill all the indications with a minimum amount of waste and trouble. I believe that where donors are available, that method should be used as a method of choice. The other methods in which we use unchanged blood require the fineness of technic that only the man who is accustomed to the frequent use of that method can perform with safety. In infections, however, where we are very prone to experience tremendous reactions which are dangerous to the patient, I think there we should use whole blood. In pernicious anemia we do experience reactions more commonly than we do in secondary anemias. The question is whether these reactions are, after all, harmful to the patient. I doubt it very much. Occasionally I have even felt that an occasional reaction is beneficial in pernicious anemia in helping to stir up possibly the ability of that patient to respond to treatment.

Finally, I just want to say a few words in connection with the diagnosis of pernicious anemia. We so often see articles on pernicious anemia in which certain findings or cases are reported, saying that pernicious anemia is caused by this or that condition. I think that there is a very general misunderstanding as to what is Addisonian pernicious anemia. I mean what is true pernicious anemia as Addison described it. If we remember that disease includes certain systemic conditions, if we remember the details of the description of that anemia by Addison as he saw it, I think we will see that very often these bizarre cases with bizarre results are not really pernicious anemia at all.

The use of spleen marrow extract, I think, is a very interesting thing, it produces some very interesting results, but, in my mind at least, it helps only to realize that we are dealing with the very complex systemic condition in anemias, that we must not consider simply the blood picture, the blood count or the blood volume, but we must remember we are dealing with a complex systemic disturbance and that this bone marrow, extract, or whatever it is, produces some systemic change which eventually results in some improvement in the blood.

I also wonder whether Dr. Broun, together with his curves of serum bilirubin after transfusion, has any such curves following after splenectomy in pernicious anemia. (Applause.)

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

Corrective Calisthenics for Gymnastic and Posture Classes; Klapp's System of Creeping Exercises

BY ELIZABETH L. SEILER, M.D.
School Physician, Kenosha

"The human spine, from an evolutionary point of view, is practically the quadruped spine set on end, a matter which has a distinct bearing on its weakness as an upright supporting column." Lovett: Lateral Curvatures of the Spine and Round Shoulders.

The principle of Klapp's creeping exercises is correction and strengthening of the spine by active muscle action in quadruped position. The method is valuable for mass exercises and for single instruction. Medical supervision, however, is indispensable to avoid over-exhaustion and over-mobilization. The different exercises are adapted to the location of the curvature and to the severity of the faulty posture.

F.p. means faulty posture (lateral curvature or round shoulders).

F.p. 1° First degree, child corrects posture if attention called to it.

F.p. 2° Second degree, corrected only, while child hanging in head swing.

F.p. 3° Third degree, immobilized curvatures with contractions of muscles and ligaments. They are best recognized while trunk bent forward. Level of both sides of trunk distinctly different.

In order to achieve best possible results, all children taking the exercises should be subjected to the following rules:

RULES OF POSTURE CLASS

I. Medical diagnosis of kind and degree of faulty posture must precede prescription of special exercises.

II. Practice at home, lightly dressed, 20 minutes in the morning and 20 minutes in the evening.

III. Sleep at least eleven hours every night with open windows.

IV. Try to come up to normal weight by drinking a quart of milk extra every day. If overweight, reduce by dropping candy, gravy, butter and cream.

V. Have noon time nap, lying on floor without pillow.

Figure 1

VI. Go swimming twice a week, practicing only breaststroke and back stroke.

KLAPP'S CREEPING EXERCISES

A. I. Name: Quadruped walk, Dog's walk.

II. Starting position (Figure 1). Stand on knees and palms of hands. Back hollow, head up, elbows straight, arms a litle more apart than shoulder width, tips of fingers pointing straight forward, thighs vertical, knees abreast.

III. Movement: Right hand and left knee go one step forward. Head and body turn to the left, spine shows total curve with convexity on the right side. Observe knee going straight forward towards hand of same side and pelvis being unmoved. With every turn of spine expiration (—), with change of step inspiration (⊥).

IV. Indication of Dog's walk: Mobilization of spine and chest. Exercise for all children. Result: Deeper chest, stronger back muscles.

V. Commands: Dog's walk (Figure 2). Move to the left; right.

With Dog's walk, as described above, the back is extended horizontally. The turns to the sides have their apex in the center of the spine, at the height of the 8th and 10th dorsal vertebra. This part of the spine is best mobilized by dog's walk. In cases of faulty posture 1° the center of movement is of no importance, the children lack merely in muscular development.

For cases of faulty posture 2° the center of the movement must be adjusted to special parts of the spine, if the curvature does not have its apex at the height of the 8th—10th dorsal vertebra. Faulty posture 2° with apex of curve at 5th and 7th dorsal vertebra is to be mobilized by Exercise B.

Figure 2

B. I. Name: Creeping low, Spider walk.

II. Starting position: Same as dog's walk (Figure 1). In addition: Hands far apart, elbows bent.

III. Movement: Same as dog's walk. In addition: Observe that head is not dropping down, but lifted up and that child looks back over shoulders, when turning to the side. Shoulder girdle as near floor as possible, hollow back, good turns to the sides.

IV. Indication of Spider Walk: Mobilization of spine and chest. Exercise for children F. P. 2°, apex of curve, 5th—7th dorsal vertebra.

V. Commands: Down for dog's walk, hands far apart, elbows bent. Move towards left—right (Figure 3).

Figure 3

Curvatures or round shoulders with apex at the height of dorsal vertebra 1st and 4th are mobilized in a position which lowers the shoulder girdle still more than the spider walk does. They are treated by Exercise C.

C. I. Name: Sliding.

II. Starting position (Figure 4): Dog's walk—arms stretched out as far forward as possible.

Figure 4

III. Movement: Right knee proceeds a small step, (+) pushing arms and trunk forward. Try to turn toward side, whose knee moved (—).

IV. Indication: F. P. 2nd, apex between 1st and 4th dorsal vertebra.

V. Commands: Down for Dog's walk. Hands stretched out forward. Start sliding,—right, left.

D. I. Name: Knee walk.

II. Starting position (Figure 5). Stand on knees. Arms to the sides, while thighs as nearly vertical as possible. Trunk bent horizontally.

Figure 5

III. Movement: Right knee walks one step forward, chest vigorously turned to the left, without giving up horizontal position. Arms swing with that turn loosely. Head turned to the right, eyes look as far backward as possible, with every turn of trunk—with changing steps ⊥.

IV. Contra-indication: Organic heart disease, tuberculosis of spine. Indication: mobilization of spine. In horizontal position of trunk for faulty postures of the first degree.

For faulty postures of the second and third degree—6 different positions.

Higher vertebrae of chest—deep knee walk.

Medium vertebrae of chest—half deep knee walk.

Lower dorsal vertebrae—horizontal knee walk.

Higher lumbar vertebrae—half steep knee walk.

Lower lumbar vertebrae—steep knee walk.

In cases of flat back—kyphotic knee walk.

Bend back forward until all spinous processes visible. Hands on hips, elbows pressed forward, head forward until chin touches chest.

V. Commands: Stand on knees. Lift arms to the sides. Forward bend, walk right,—left.

E. I. Name: Creeping steeply.

II. Starting position (Figure 6). Dog's walk, left knee to the left hand, right hand on to right hip, left arm helps only balancing leg, without relieving left thigh from carrying whole trunk—eyes down to left hand.

III. Movement: Right leg stretched backward, while right knee straight. With turn of body to the sides —. With changing steps +.

IV. Indication: Kyphosis, 2nd degree, apex 1-3 lumbar vertebra.

V. Left knee forward. Turn to the left. Stretch out right knee. Right knee forward, twice, to the right. Stretch out left knee.

Figure 6

VI. For kyphosis, 2nd degree, apex 4-5 lumbar vertebra, knee takes a bigger step forward, trunk bends even more backward.

F. I. Name: Great Arch.

II. Starting position. Dog's walk (Figure 1).

III. Right knee to the right hand. Eyes down to right hand. Left arm up, fingers point up to the ceiling. Left arm comes down to the side near floor. Try to reach out to the left side as far as possible while shoulders deep down, hollow back. Left arm sweeps in a quarter circle forward until it is stretched out in front of left knee.

IV. Indication: 1. Leveling exercise for all faulty postures of 1st degree, using every part of spine successively from neck to sacrum. 2. Leveling exercise for Kyphosis 2nd degree, apex 8-10 dorsal, 11-12 dorsal, 1-5 lumbar vertebrae. 3. Strengthening exercise for children with poor development of muscles of back.

V. Commands: 1. Down for dog's walk; get ready for great arch. 2. Right knee forward, left arm up, eyes down (Figure 7). 3. Left arm down, reach out to left side and forward (Figure 7).

Figure 7

G. I. Name: Walking Stiff.

II. Starting position. Lie down on stomach. Stand on straight arms and back on straight toes. (Figure 8.)

III. Movement: Walking forward, while staying stiffly stretched out.

IV. Indication: Strengthening for muscles of back and abdomen.

V. Commands: Lie down on stomach. Up for walking stiffly. Right foot. Left foot.

H. I. Name: Rabbit Jump. Jumping up and down with flinging up arms.

Figure 8

II. Starting position: Dog's walk with arms stretched far forward.

III. Movement: 1. Fling up arms. 2. Forward down as for sliding with hollow back. 3. Jump with knees between hands.

IV. Indication: Strengthening exercise for the whole back.

V. Commands: 1. Down for rabbit jump (Figure 9). 2. Up (left, Figure 10). 3. Down (Figure 9). 4. Jump (right, Figure 10).

Figure 9

Figure 10

I. I. Name: Torsion.

II. Starting position: like Figure 9, sliding.

III. Movement. 2. Left arm stays stretched out for sliding right hand to right hip, trunk turns upward to the right, eyes look up to ceiling (Figure 11). 3. Right arm forward sliding position, Figure 9, of rabbit jump. 4. Knees jump between hands. Figure 10, right, of rabbit jump. Repeat with left side torsion.

IV. Indication: Leveling and strengthening exercise.

Figure 11

V. Commands: 1. Down for torsion—same. 2. Right side turn up—left side up. 3. Back sliding—same. 4. Jump—same.

SUGGESTIONS TO INTERRUPT CREEPING EXERCISES

I. Frequent rest either on back or on stomach. (Never on side.) See Figure 12.

II. Setting up exercises out of standing, kneeling, or lying position.

Example: See photograph.

Commands: Straight legs—arms. Head up.

III. Exercises for feet and ankles, while sitting with dangling legs.

IV. Plays in dog's walk (or other positions). Rat and cat, last couple out, and so forth

Figure 12

V. Races for short distances in various positions, especially dog's walk and walking stiffly. Not in knee walk.

VI. Informal contests for various kinds of stunts, brought up by the children themselves. Summer saults, cart wheels, jumping on one leg, standing on hands and head, human ball, bending backwards, rocker, leap frog (see photograph), picking up paper from great toe with mouth. (Collection to be continued.) The ideal place for corrective exercises is a short cut lawn. The ideal outfit: bathing suits, pads strapped on toes, knees and hands.

SUMMARY

Among the results of the first posture class conducted at Kenosha during five weeks of the summer vacation were:

RECORD FORM

Orthopedic Record No. Name Age Sex

School: Grade: Address:

Referred by:

Personal history:

Rickets Pleurisy Hip disorder Ischias Rheumatism

Abdominal operations Hernia Heart disease Tuberculosis

Examination:

Underweight Anemia Heart Lungs

Specials:	Beginning Class Date	End of Class
Date		
1. Height		
2. Weight		
3. Chest expansion		
4. Compare height of shoulders in front		
5. Mark Assymetries of rib formation in front		
6. Compare position of shoulder blades in back		
7. Compare size and shape of triangles between hanging arms and trunk in waist line in back		
8. Deviation from plumb line to the	side	side
9. Location of apex of curvature		
10. Number of vertebrae involved		
11. Degree (Mobility!) of faulty posture		
12. Bow legs? Specify		
13. Flat feet?		
14. Development of muscles		
15. Development of joints		

Diagnosis: I. Kind of faulty posture.

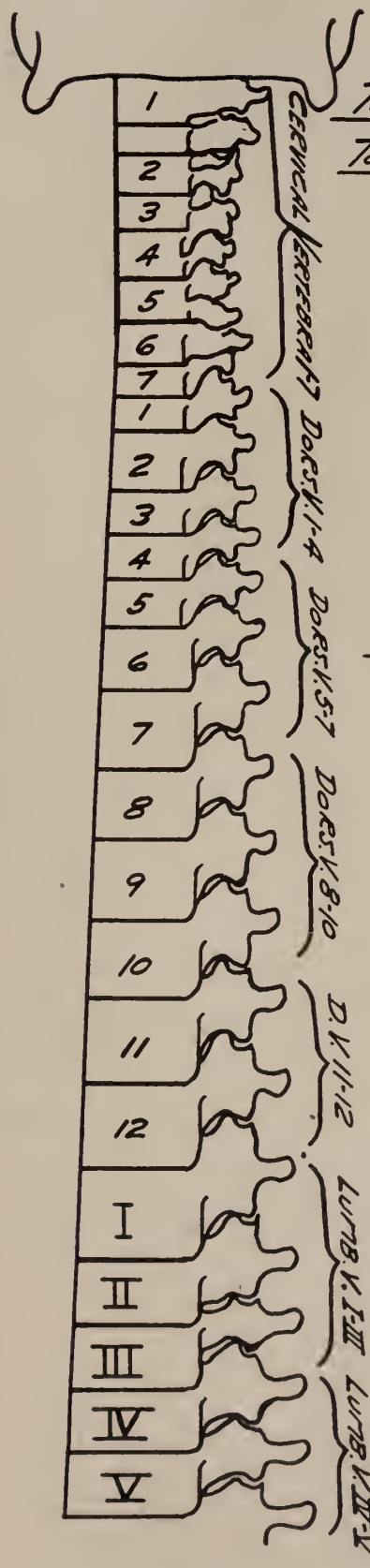
Flat Kyphosis Lordosis Skoliosis Kypho-skoliosis

II. Degree of faulty posture.

III. Deformation of extremities.

IV. Complications.

Treatment:



THE ADAPTATION OF THE EXERCISES TO THE LOCATION OF THE APEX OF THE CURVATURE

SLIDING

CREEPING HALF FOR SPIDERWALK

CREEPING HORIZONTALLY DOG'S WALK

CREEPING HALF STEEPLY

CREEPING STEEPLY SIDEWAYS

CREEPING STEEPLY BACKWARDS

Average minimum gain in weight, 2 pounds.
Average maximum gain in weight, 10 pounds.
Average minimum gain in chest expansion, 1 inch.
Average maximum gain in chest expansion, 2½ inches.

The health statistics of the I B grades in Kenosha show:

1. That only 23.3% of all the children have normal or treated teeth, which percentage increases to 66% in the Junior High Schools, due to corrections made later in school life.

2. Only 29.3% have normal or treated tonsils.

3. Only 20% are free from cervical glands.

4. Only 58% are free from beginning or advanced goiter, which percentage falls continually during school age, as the comparison of advanced cases indicate: 4.1% in I B grades against 28.4% in Junior High Schools.

5. That 59.2% of I B grade children show normal posture, which percentage falls continually during school age, down to only 23% in Junior High Schools.

6. The comparison of the disorders of the heart shows 8.8% in the I B grades against 5.7% in the Junior High Schools, while the number of cases showing merely rapid action reveals reversed proportion: 17% in I B grades against 55% in Junior High Schools, an increase of 38% during school age.

7. Some 27% of the children in I B grades show slight or more severe disorders of the nervous system, which percentage climbs continually up to 42% in the Junior High Schools.

8. Of the I B grade children 34% have slight or marked anemia.

9. Only 44.1% of the I B grade children show normal weight, 22% overweight and 34% underweight.

10. There were 4% chronic skin conditions found among the first B grade children and 8% orthopedic deformities, not counting deformities of the spine, which have been previously considered under posture.

HEALTH STATISTICS, ALL 1B GRADES IN KENOSHA

	343 Girls	355 Boys	698 Total
	(Percentages of conditions found:)		
TEETH:			
Treated and normal	19.2	27.4	23.3
Beginning decay	26.0	25.1	25.4
Bad	27.1	27.1	29.0
Very bad	26.8	17.6	22.0
Pyorrhea and abscess	0.6	2.3	1.3
TONSILS:			
Normal or taken out	29.4	29.0	29.3
Enlarged	28.8	30.0	29.5
Bad	24.7	25.8	25.1
Very bad	17.1	15.2	16.1
EYES: Only severe, manifest conditions. No eye examination made.			
Inflammatory conditions	2.9	2.8	2.8
Severe visual disturb	3.9	5.1	4.4
EARS:			
Bad hearing	2.0	2.8	2.4
Very bad hearing	....	0.6	0.3
NASAL OBSTRUCTION:			
Normal breathing	75.2	62.9	69.1
Slight	20.7	32.4	26.5
Bad	3.8	3.9	3.8
Very bad	0.3	0.8	0.6
SPEECH DEFECT:			
Bad	5.8	3.9	4.9
Very bad	0.9	1.3	1.1
CERVICAL GLANDS:			
Normal consist	20.4	20.0	20.0
Slightly enlarged	61.2	62.5	61.9

Bad	13.7	12.9	13.4
Very bad	4.7	4.5	4.6
THYROID GLAND:			
Apparently normal	42.3	73.5	58.0
Slightly enlarged	51.6	24.2	37.8
Considerably enlarged	5.0	2.2	3.6
Large goiter	0.9	....	0.5
POSTURE:			
Normal	60.2	58.3	59.2
Faulty posture 1°	35.8	38.3	37.0
Faulty posture 2°	3.9	3.1	3.5
Faulty posture 3°	....	0.3	0.2
LUNGS:			
Bronchitis	3.3	3.9	3.5
Suspicion of Bronchial glands	1.8	3.1	2.4
Lack of expansion (Pleurisy?)	....	0.6	0.3
Asthma	....	0.3	0.2
HEART:			
Rapid action	20.4	13.8	17.0
Low murmur	5.0	7.0	6.0
Loud murmur	4.0	1.7	2.8
Marked irregularity	0.6	0.3	0.4
NERVES:			
Vasomotoric excitability (without heart symptoms)	1.8	4.8	3.3
Slightly increased reflexes	21.6	19.4	20.4
Overstrung	6.7	5.6	6.1
Manifest nervous disturbance (including case of Hypomania)	0.3	1.1	0.7
ANEMIA:			
Slight	34.1	29.8	31.8
Marked	2.9	2.0	2.4
Very bad	0.3	....	0.2
WEIGHT:			
Normal (3% over to 3% under)	39.0	48.7	43.9
Slightly over (4%-8%)	12.0	12.0	12.0
Severely over (9%-more)	11.6	8.7	10.1
Slightly under (4%-8%)	21.6	20.6	21.0
Severely under (9%-more)	15.8	9.9	12.9
DEFORMITIES:			
Cases of asymetric thorax	16	19	35
Cases of Chickenchest	1	3	4
Cases of Pidgeonhole chest	1	2	3
Cases of short leg after Osteomyelitis	1	..	1
Cases of Spastic paresis of leg	1	..	1
Cases of Infantile paralysis	1	..	1
Cases of Cleft palate	1	..	1
Cases of Wry neck	..	1	1

SKIN CONDITIONS FOUND

Eczema	3	Herpes' Zoster	1
Eczema of elbow joints	2	Brown pigmentation all over	1
Ichthyosis	2	Pithyriasis versicolor	1
Very dry skin (2 cases combined with heart disease, 10 with increased reflexes)	12	Lupus erythematodes	1
		Bleeder?	1
Dermatitis of trunk	1	Acute scabies	2
Herpes' labiatis	1	Acute chickenpox	1

THE JOURNAL CLINIC

Differential Diagnosis of Case Reported in February

BY L. M. WARFIELD, M.D.
Milwaukee

The case of the 8-year-old boy with the stiff knee whose history was related in the Journal last month will now be analyzed.

Several possibilities present themselves: (1) tuberculosis, (2) rheumatism in children, (3) syphilis, (4) intermittent hydrops, (5) functional neurosis.

(1) Tuberculosis is the first diagnosis which crosses the mind when we see joint conditions in children. The age, the high lymphocyte count, the history of a swollen gland in the neck, the painful knee, were points suggesting this diagnosis. However, the absence of tuberculosis in the gland, the absence of any evidence of any bone or joint disease and the negative reaction to intradermal O. T. definitely rule out this probability.

(2) Rheumatism in children has an entirely different series of symptoms from rheumatism in the young adult. Transient stiffness of joints, "growing" pains, sudden disability in a joint, usually hip or knee, are common manifestations which are probably seen oftener in England than in America, although I have seen a rheumatic hip simulate an early tuberculosis of the hip so that it was several days before the correct diagnosis was made. The blood count, the enlarged spleen, are not incompatible with this diagnosis. The absence of all heart lesion, the absence of all foci of infection, the length of time from onset would seem to render this possibility at least doubtful.

(3) Syphilis is the most important disease to be ruled out or absolutely confirmed in every case. In this boy there is a clean immediate family record. His upper central incisor teeth are not quite normal, he has one of the stigmata of degeneration, (low placed external auditory meati), he has a decided lymphycytosis for a boy 8 years of age, he has a large firm spleen. He has pains in his joints at night so sudden and so severe that he is awakened and cries out. These signs and symptoms are certainly very suggestive, but he has a negative W. R. with the most sensitive antigen. We will all agree that a negative W. R. should not influence us if signs and symptoms all point to syphilis. Are the signs and symptoms sufficient for a diagnosis of syphilis in the face of a negative W. R.?

(4) Intermittent hydrops can be dismissed at once as a possibility as there has at no time been evidence of effusion into either joint capsule.

(5) A functional neurosis is possible. The boy, however, is so placid, so phlegmatic, so opposite in appearance and disposition from one who might have a neurosis, he apparently likes school and certainly likes to play. One factor which is of interest is that the home conditions are not as harmonious as they might be and he may react with this more or less hysterical condition as a defense reaction. The peculiar complaint and the absolute normal condition of his joints rather suggest this possibility.

A curious history of splenic enlargement in both his paternal grandmother and in his father, both of whom lived for a long time in India, might explain the boy's large spleen on the basis of heredity. It is not chronic malaria, it is not kala-azar (unless either of these diseases is hereditary, a doubtful supposition) and it is accompanied with an unusually high lymphocyte count. Besides while taking a mixture of potassium iodide and mercury his spleen has decreased in size, so that it is at present just palpable. Moreover, he has had no attack since October, 1925, and seems to be in the best of health.

Then what is the diagnosis? I believe that we can definitely rule out tuberculosis, intermittent hydrops and rheumatism. I do not believe we can altogether rule out an hysterical element, and I do not feel that we can entirely lay aside the possibility of lues congenita although there is really no definite data for this diagnosis. In spite of the negative W. R. the so-called therapeutic test has coincided with a noticeable reduction in size of the spleen. This may have been pure accident. One could hardly base a diagnosis on this therapeutic test.

I am inclined to the view, therefore, that this is

a case of hysteria. There seems to me more evidence in favor of this than of any other diagnosis. The enlarged spleen remains inadequately explained unless we grant the possibility of heredity. The important thing after all is that the boy appears well and has had no further attack.

A Second Case for Diagnosis

BY L. M. WARFIELD, M.D.
Milwaukee

A lady of 73 years whom I had known for many years had the following history.

She was the youngest of a large family, four brothers and one sister. One brother who was wounded in the war of 1861-65 and her sister died in the 5th decade of heart failure, the result of rheumatic fever. One brother died of cirrhosis of the liver, one cause unknown, one died of arteriosclerosis at an advanced age. Her parents died at advanced ages. There was no tuberculosis or cancer but some evidence of gout in the family history.

She had never had any serious illness as a young woman. Menstruation was normal. The first pregnancy miscarried at four months. There were three living children after that mishap, all well, the youngest 35 years old. Climacteric occurred in the late forties. For many years she had suffered from violent attacks of pain in the abdomen which was said to be indigestion. Finally in 1910 she was operated upon and many stones removed from the gall bladder. Following operation she had no further indigestion. In 1910 she fell and broke the neck of the left femur. The bone never united and she not only walked with a limp but suffered often with pain in the hip and knee. In 1912 she had a uterine hemorrhage. Examination failed to reveal any signs of malignancy and she had no further hemorrhages and no vaginal discharge.

In December, 1923, she was desperately ill with influenzal pneumonia from which she gradually recovered but she never was as strong as she had been before the illness.

Off and on for many years before her death her heart, urine, and blood pressure were examined and were always found normal. Her radial arteries were not sclerosed. She never suffered from any cardiac or renal symptoms, rarely ever had a headache and her mind was always clear and her intelligence above the normal.

In June, 1924, she was spending the summer in North Carolina. She was feeling quite well again after her illness. One morning when she awoke she noticed she was seeing double, the left eye would not move. There was no pain, no unconsciousness, no mental disturbances of any kind. Quite alarmed, she called a doctor who found her blood pressure 190/110, a paralysis of the 3rd and 6th nerves of the left eye, no fever. He frightened her about a cranial hemorrhage so that she determined to go to Asheville, 25 miles away, and consult a doctor whom she knew. She made the trip with some difficulty, her inability to see and her lameness making the journey quite a serious matter. Arrived at Asheville she called a doctor who found the eye condition, confirmed the high blood pressure and found also a small amount of albumen and a few hyaline casts in the urine. The reflexes were all present and normal. There were no other paralyses. The non-protein nitrogen of the blood was 25 mg. per 100 c.c. He treated her rather drastically with large daily doses of magnesium sulphate so that she became weak and lost considerable weight. She was then brought to me for examination and opinion. I found her rather weak, blood pressure 160/100 and confirmed the eye condition which, however, was slowly improving. After about a month she gained back some weight and strength, her eye was much improved but still showed weakness of the muscles and her blood pressure reached 140/90. The urine off and on showed a very slight amount of albumen and a few hyaline casts. Physical examination of the other organs revealed no abnormalities.

About a month after she had had her peculiar attack and while she was improving in every way with absolutely no mental symptoms she complained of feeling bad and had fever of 101° F. She was put to bed. Within a few hours she developed violent paroxysms of pain in the left ear. Years before she had had a fulminating otitis media in that ear which, however, healed without sequelae. Examination of the ear by a specialist revealed no change. Physical examination showed only an increased heart rate and rales at the bases of both lungs. There were no paralyses except

that in the left eye. Within twenty-four hours she became drowsy, gradually passed into coma and died two days later without recovering consciousness.

I was completely in the dark as to the diagnosis. Can my readers solve the problem? Next month the solution will appear together with a discussion of the case.

Observations on the Results of Sanatorium Treatment for the Tuberculous

BY J. W. COON, M.D.
Stevens Point

The average practitioner, after establishing a diagnosis of tuberculosis, feels that he has done his duty to his patient when he has persuaded him to enter a sanatorium. And he has. But what happens to that patient afterwards, what of his average chances for recovery, about how long should he continue under sanatorium care? These are questions that not only he, but the patient and his family are interested in. It is with that in mind that the statistics, taken from the records of one of the smaller sanatoria for the past year, are presented in Tables 1 and 2.

TABLE NO. 1

Condition on admission:	
Incipient	23.8%
Moderately advanced	52.4%
Far advanced	23.8%

TABLE NO. 2

Condition on discharge:	
Apparently arrested	7.9%
Quiescent	41.2%
Improved	25.4%
Unimproved	15.8%
Died	9.6%

Referring to Table No. 1, it may be somewhat of a shock to find that about 75% of the cases admitted were in the advanced stages. And this in spite of the great educational campaign that has been waged against the Great White Plague, to say nothing of the advances in our knowledge of methods of diagnosis.

Table No. 3 shows the end results obtained with the different types of cases, as well as the average length of stay. The short average stay of the far advanced cases is accounted for by the fact that the patients who have died have remained for only a short period of time, although patients who remained less than a month are not taken into account in these figures at all. Especially noteworthy are the results in the moderately advanced cases, 88% of the cases having shown improvement. Results with the far advanced cases confirm the obvious fact that early diagnosis and the early institution of treatment are the important factors in the control of tuberculosis. With the increased number of beds for the tuberculous patients throughout the state, the early hospitalization of these cases ought to be insisted upon.

TABLE NO. 3

Condition on admission:			
Stage	Incipient	Moderately Advanced	Far Advanced
Patients	15	33	15
Average stay	110 days	254 days	148 days
Condition on discharge:			
Apparently arrested	3 or 20%	2 or 6%	None
Quiescent	9 or 60%	16 or 48%	1 or 7%
Improved	3 or 20%	11 or 33%	3 or 20%
Unimproved	None	4 or 12%	5 or 33%
Died	None	None	6 or 40%

No attempt is made at giving a comparison of results obtained under different climatic conditions, the statistics as given should, of themselves, be sufficient proof that a change of climate is not the essential factor in the treatment of tuberculosis.

Papillary-Adeno Carcinoma of the Ovary; Report of Case Effectively Treated with Colloidal Gold

BY LOUIS H. NOWACK, M.D.
Watertown

On December 8, 1924, Mrs. H. came under my care as an office patient, age 40, and from all appearances in the best of health. Family history revealed no malignancy.

Following her departure from school, she had been employed as a servant girl, until her marriage fourteen years ago. Menstruation initiated at the age of 14, had always been regular and normal in

every particular, and there had been no pregnancies. On going over her past history more carefully, I learned that a diagnosis of uterine fibroid had been made, fourteen years ago, just after her marriage.

On the date above given, December 8, 1924, she gave the history of absence of menstruation since the middle of October, 1924, and said she had had a great deal of distress with gas, since the missing of her November period, also that there were days in which bladder symptoms were marked, frequent urination being an annoying feature. In going over the patient very carefully all systems were found normal, except abdomen and pelvis.

External examination of the abdomen showed a tumor about the size of a five months' pregnancy, apparently of uterine origin, but very tender upon manipulation.

Bimanual examination showed a mass, partially solid, partially fluctuating, filling the pelvis, but very obscure as to origin, and in that menstruation had ceased and the cervix seemed unusually soft, the possibility of an associated pregnancy seemed probable.

The patient was kept under observation, examinations being made again on January 26, 1925, and February 14, 1925, and as no progressive enlargement of the mass was evident, and pregnancy thereby excluded, surgical treatment was decided upon.

On February 18, 1925, a laporatomy was done, with findings and surgical work as follows:

PATHOLOGY

A multilocular, right, ovarian cyst, size of a man's head, firmly adherent to the uterus, bowel, abdominal wall and floor of culdesac, with a portion of it entirely mushroomed over the fundus of the uterus, and its anterior border firmly adherent to the posterior wall of the bladder, and separating later from the anterior surface of the uterus.

The right upper extremity of the tumor reached to and was adherent to the caecum about one inch from the appendiceal origin. One cavity of this multilocular cyst contained many masses of cauliflower appearance, apparently malignant, one of these fungating masses extending through the cyst wall into the right broad ligament, and was surrounded by a purulent fluid, also suggestive of malignancy. A specimen sent to Dr. E. L. Tharinger, Milwaukee, was reported on, five days later, as papillary adeno-carcinoma.

Surgical treatment consisted in loosening of surrounding adhesions, removal of every part of tumor mass that was safe to remove, and the insertion of a central drain.

Post-operative treatment consisted mostly of relief of pain in back and gas distention due to an almost daily picture of partial bowel obstruction.

Anorexia was the rule throughout, and many of the small feedings were not retained, because of the constant nausea.

On the 31st post-operative day, menstruation again became established, of three days' duration.

On the 51st postoperative day, April 16, 1925, patient was removed from the hospital to her home with:

(a) Drainage wound still discharging seropurulent fluid.

(b) Anorexia and constipation still the rule, the latter sufficiently severe to call for from two to three enemas daily, to attain partial relief from the gaseous distention, for the associated pain of which latter ¼ to ½ grain of morphia was needed each evening before rest was acquired.

(c) The patient very much emaciated and cachetic and the abdomen again showing a mass to right of the median line, about the size of a large grapefruit, which was constantly very painful and extremely tender on touch, the lower border of which reached well down into the vagina. All told the picture was indeed discouraging, and I could begin to see the effects of morphia administration, to add to the gloom.

On May 29, 1925, as a last resort, with a feeling of "If it does no good, it can do no harm," the administration of pure aqueous solution of colloidal gold was begun.

Because of the severity of the case, and in view of the stubborn constipation, we began with twenty-drop doses, given three times daily, in a wineglassful of water. Within twenty-four hours, after the initial dose, strange as it may seem, there was no further need of an opiate, the severe pain was gone as if by magic, there was an almost equally rapid betterment of her bowel condition, and her appetite and strength returned rapidly.

Her weight on date of discharge from the hospital, I would judge was less than one hundred pounds, but had reached 128 pounds six weeks after colloidal gold was given. On October 15th, 156 pounds had been reached; November 30, 1925,

163½ pounds; December 30, 1925, 170¾ pounds; and on January 23, 1926, 173½ pounds.

Patient has for some weeks back been caring for every bit of her housework, including all of her laundry work, has an excellent appetite, bowels move each day without any special laxative, and the drain wound is firmly closed, with abdominal and vaginal findings entirely wiped out, except for an apparent mass, the size of a hen's egg, in the region of the appendix, with tenderness on deep pressure, evident only in relationship to said area. Bladder irritability has disappeared.

SUMMARY

I report this case for the following reasons:

1. Macroscopic and microscopic findings have absolutely coincided, and given us an opportunity to actually prove the therapeutic value of our medicament.

2. The post-operative picture, immediate and remote has been one to despair of.

3. The present findings and the patient's betterment are so generally in keeping and progressive toward an apparent final help.

4. From a therapeutic standpoint what else have we to take its place, for the alleviation of pain, in these cases of malignancy? If only this latter can be assured by the administration of any one therapeutic agent outside of morphia, what a boon it would be to both patient and physician.

Blastomycosis: A Case Report*

BY K. L. PUESTOW, M.D.

Medical School, University of Wisconsin

The following case of blastomycosis is presented merely to put on record the occurrence of one of the rarer infections. If the incidence of this condition, which is most prevalent in the Chicago district, is borne in mind, it may help in its early diagnosis when amenable to treatment.

A. J. S., single male, engineering student, age 22, was first seen on March 19, 1925, when he was suffering from such an intense backache that he could not be moved in bed. This pain seemed to arise in the region of the upper lumbar spine and was associated with an almost opisthotonos condition from marked contraction of the erector spinae muscles which were also very tender. Opiates were required before he could be moved to the University Infirmary.

The pain had been coming on for about a week, although he had not felt well for two weeks.

P. H. On January 22, 1925, he was cut above his right eye by a small piece of wire. Later he infected this cut by tampering with it with his finger nails, producing an indolent running sore which did not heal until just before his admittance. About the same time a swelling developed in the suboccipital region, and he noticed a crust-covered swelling on the dorsum of his right thumb. The former had been removed, and although not studied, he had been told that it was an infected gland. The incision healed readily and his neck caused no further trouble. The thumb lesion always was covered with a crust; but inasmuch as it caused no discomfort, he disregarded it.

On February 26th during a physical examination, notation had been made of a left axillary adenopathy painful enough to limit movement of his arm. Almost simultaneously he noticed a similar swelling in the right axillary region. His history was otherwise esentially negative.

PHYSICAL EXAMINATION

Well developed young adult male confined to bed because of extreme lumbar pain. Upon moving he maintains his spine in a rigid position so as not to accentuate his distress. There is no limitation of movement of extremities or head. Some loss of weight is apparent.

His skin is clear and pasty. Mucous membranes pale. Above the right eye near the inner canthus is a linear pink scar of 1 cm. In the suboccipital region is a similar scar of 3 cm. from the incision made for the removal of the "infected gland" noted.

No adenopathy exists except in both axillary regions. This adenopathy is visible and more prominent on the right. To touch a painful hard non-fluctuant irregular or nodular mass can be felt which apparently involves the axillary lymph nodes of both sides.

The lumbar spine is held rigidly straight so that there is a loss of the normal lumbar lordosis and almost complete immobility. The erector spinae muscles are prominent from spasm and are tender.

*From the Department of Clinical Medicine of the University of Wisconsin.

No tenderness is elicited over the spine. The first lumbar spinous process is prominent; the 12th thoracic relatively depressed.

On the dorsum of the right thumb is noticed a painless granulomatous crust-covered swelling about 1½x1 cm. in diameter and uniformly elevated. Removal of the crust reveals a bleeding, irregular granulomatous base which omits a thick grayish pus.

The physical examination otherwise is essentially negative.

The urine upon admittance showed only a slight trace of albumin, which persisted throughout the course of the illness.

BLOOD EXAMINATION

	Blood upon admittance Mar. 20, 1925	Apr. 9, 1925
Hemoglobin	82%	77%
R. B. C.	4,860,000	4,880,500
W. B. C.	10,600	10,800
Polys.	68.0%	70.0%
S. Lymphs.	20.5	22.0
L. Lymphs	1.5	1.0
L. Mono.	9.0	4.0
Eosin.	0.5	2.5
Baso.	0.5	0.5

The differential counts are characteristic of all others made. The leucocyte count varied usually between 8,000 and 9,000—once (March 30th, 1925) reading 13,000.

3-29-25 Right axilla drained. One ounce of thick yellow pus obtained. It is evident that the pus is from individually infected lymph nodes which do not communicate. Culture report was staphylococci.

4- 7-25 Stereoscopic X-ray of chest negative.

4-10-25 Drainage instituted in left axilla similar to right. Culture report — staphylococcus aureus.

4-15-25 Pain in back, which had been relieved by rest in bed, growing worse. X-ray of lumbar and lower dorsal spine taken anteriorly, posteriorly and obliquely—negative.

4-17-25 Pain in back much worse—traction applied, 10 pounds to each leg. This subsequently gave complete relief.

4-20-25 Blastomycosis reported from biopsy of thumb. (A biopsy was made after repeated axillary smears and cultures, guinea pig inoculations, blood cultures and Wassermann had given no additional information. After the biopsy yeast cells were found in both axillae.)

4-21-25 X-ray of spine repeated—negative.

5- 2-25 Pain and tenderness in left wrist and right ankle. This was relieved after two or three days' rest.

5- 8-25 Traction removed. No return of pain to back.

5-21-25 Discharged. Still some drainage from axillae. No pains.

Following discharge from the Infirmary the axillae cleared up rapidly and on August 1, 1925, he resumed work apparently having been well for over a month.

TREATMENT

Potassium iodide grains XXX daily in three doses was instituted on April 20, 1925, and was increased from V to XV grains daily, until he took 200 grains daily at time of discharge. He increased this to 300 grains daily after discharge, and during July, 1925, although apparently well he took from 150 to 200 grains.

On May 19, 1925, X-ray therapy was instituted, and five filtered X-ray treatments to axillae and thumb were given by Dr. R. L. McIntosh.

Other treatment was symptomatic.

In this case yeast cells were obtained from cutaneous lesions and subcutaneous lymphoid tissue and were observed in tissue sections of a cutaneous lesion. Although as yet no differentiation can be made from cultural characteristics between saprophitic and parasitic yeasts their appearance in connection with an indolent suppurating granuloma suggests that their presence is of more significance than the commonly contaminating saprophitic yeast. No objective observations were made to prove the existence of a lesion in the lumbar spine, but the fact that the pain in the back was noticed after the onset of symptoms elsewhere and subsided upon the institution of potassium iodide treatment, infers the probability of infection there. Of especial interest is this case, also, because of the quick result obtained after so extensive and deep an infection. Although both iodide and X-ray treatment was used it seems apparent the outcome would have been obviously good by the use of the iodides alone, so rapid and nearly complete was the progress before the use of the X-ray was instituted.

CHANCROIDAL ULCERS TREATED LOCALLY WITH ANTIMONY AND POTASSIUM TARTRATE SOLUTIONS

Ernest Rupel, Indianapolis (Journal A. M. A., Feb. 20, 1926), cites eight cases in which good use was made of antimony and potassium tartrate in the treatment of chancroidal ulcers. He used a 0.5 per cent solution of antimony and potassium tartrate locally, twice daily, and in each case healing occurred promptly.

Abstract of Papers Before University of Wisconsin Medical Society

C. D. LEAKE, EDITOR

THE PHYSIOLOGY OF THE LARYNX AS A VOICE-BOX

BY ROBERT WEST, Ph.D.

Department of Speech, University of Wisconsin

The object of the investigation was to determine the nature and cause of the laryngeal vibration responsible for vocal sounds.

Due to the technical difficulty of studying the living larynx in action by means of the laryngoscope, a development of the magneto-phonograph was undertaken to perfect a method of recording graphically the external movements of the surface of the larynx. This instrument had been previously used for the recording of heart sounds. Further development made it possible to enlarge and to photograph the minute movements of the laryngeal surface. The instrument developed for this purpose was named the Magnetophonophotograph.

The double-maxima curve written by this apparatus when the transmitting device was held over the point of the larynx seemed peculiar enough to warrant further investigation. An artificial larynx was constructed that showed vibrations of its two bands to be exactly in opposite phase. This larynx presented a magneto-phonophotographic curve precisely like the human larynx. The assumption arising out of this similarity was that the two bands of the human larynx also vibrate alternately, that is, in opposite phase. This assumption was tested by studying many other vibrating edges and surfaces of analogous nature.

The magnetophonograph was checked as to its general functional accuracy by comparing its tracings with those presented by the Koenig manometric flame and revolving mirrors.

That such alternations in movements of the two vocal bands do actually take place is the more evident when we consider the hydrodynamics of the larynx. Any liquid or gas under pressure, allowed to escape through an orifice, develops what are known as eddies, which form at the "down-stream" edge of the orifice, and increase in size until they are carried away by the current. These eddies break away from the edge of the orifice at regular intervals, first from one point on the edge and then from another. The glottis is the orifice concerned in our investigation. Eddies form, grow, and break away alternately from the upper surfaces of the edges of the two bands. While an eddy is forming above one of the bands, the upward pressure upon that band is somewhat counteracted by the downward pressure of the eddy. The opposite band being free of an eddy is forced vigorously upward, and remains in that position until its eddy forms, following the release of the eddy from the opposite band, and the consequent upward movement of that band. Thus the bands remain in alternate vibration.

The problem at once presents itself: Is the pitch of the perceived vocal tone that of the frequency of one band or the combined frequency of the two. That is: When one is singing at middle C, is his right band making 256 excursions per second or only 128. By accurate timing of the magnetophonographic record, it was discovered that the pitch of the tone is the frequency of the right band (i. e., of one band).

Factors responsible for combining these alternate and opposing vibrations into a composite tone are resonance and auditory perception.

CONCLUSION

That each cycle of laryngeal vibration consists of one complete movement of each of the two vocal bands, and that these two movements are in opposite phase.

DISCUSSION

Dr. P. M. Dawson stated that in the older textbooks on physiology, considerable space would be found devoted to the physiology of speech. This subject apparently has now broken away from the parent stem and is engaged in excellent scientific research on its own resources. Dr. West's work is apparently the first significant work of its kind which has appeared. Even the famous Helmholz had an entirely erroneous conception of the physiology of the vocal cords, believing that they worked together. The difference in the character of the male and female voice is interesting in the light of these studies and in connection with the size of the resonator.

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There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee. "Let George do it."

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FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

CORRECTION OR DIRECTION

THE end of the year 1925 brought to your State Medical Society of Wisconsin a new record for membership when certificate number 2,000 was issued. At the same time the records showed a remarkable decrease in the already small number who allow their membership to lapse.

The Society has just completed its third year of administration under a full time lay executive officer. The work which has been completed is not so much the accomplishments of that officer as it is the accomplishments of each member, for it is they who have made the new system possible.

Not only have the members by their individual financial support made this new administration possible, but by their active personal support they have jointly written the word "Completed" after many a worthy project where some elsewhere have said, "It can't be done."

We now enter upon a fourth year under the comparatively new policy. We must now realize that the major work of today must be anticipatory of the conditions of tomorrow. Much can be done where immediate benefits to the profession and public will be seen. But the largest field of endeavor will be that in which the Society bends its efforts toward direction rather than correction.

This is a promising field; it is an inspiring one. The work of years brings us now to the threshold of great opportunity. May we have the vision that will enable us to continue doing that which "can't be done"; may we have the continued individual support that will alone make the group possible and its efforts successful.—J. G. C.

HIGH SCHOOL ATHLETICS

EVERY now and then one hears of boys of high school age who have died of heart disease apparently brought on by violent exercise. Although the reports that come to one's ears occasionally are few, nevertheless if these reports be true, and some of them probably are true, it shows that careful supervision over the health of the boys must have been lacking. Pro and con there has been a great deal said about the deleterious influence of violent exercise, as football, upon the heart of the growing boy of high school age. Undoubtedly much of the opinion expressed concerning the harmfulness of the exercise has had its origin in the occasional boy who really should not have engaged in any violent exercise. The hundreds, yes, thousands of boys who have passed through this period and who have apparently come out of it without any permanent after-effects are lost sight of. It is comparable to the fabulous reports of the few successful stock speculators and the total lack of information concerning the thousands who lost their all in the speculative markets. The exceptional case is always played up and the ordinary every day case is usually passed over entirely.

That violent exercise can harm the growing boy, is only too true. However, the boy who is harmed is really the exception, for all the recent investigations made upon the hearts of young athletes show that the *normal* heart is not harmed by any sort of exercise. Since this is the case, it would seem the part of wisdom to endeavor to find out which ones among the athletes have hearts which might be affected harmfully by exercise. This, it seems to the writer, can only be done by careful examination of these boys, with careful tracing of the heart by means of the X-ray.

It is notorious how difficult or practically impossible it is to determine the size of the heart by percussion. But it can be done very accurately with the fluoroscope, and can be the means of checking up, throughout the athletic season, the influence of exercise upon the size and shape of the heart. In our propaganda for health, we should not neglect any part of the program however small. If only one out of one hundred is found to show evidence of beginning permanent enlargement, it will be worth the effort made in performing the other ninety-nine examinations.

—L. M. W.

WITH OTHER EDITORS

NEGLECTED FIELDS OF PRACTICE

Russell Conwell made a fortune for Temple University by his lecture on "Acres of Diamonds," the burden of which was that around every one of us there lie unnoticed opportunities for acquiring fame and fortune along lines which are useful to our fellows. Hosts of patients whom physicians

could help if they would are seeking quack relief because their doctors do not want to bother with them.

Geriatrics is a specialty of increasing importance whose very meaning is strange to many doctors. More people than ever are reaching old age, and larger numbers have the means for paying a doctor for relief from their aches and worries. Children are anxious to do their full duty to their aged parents, and to give comfort to the old folks. A doctor who can please an aged parent and give a querulous octogenarian relief and sleep is a benefactor. Yet how many physicians besides a few old family doctors have given serious thought to the diseases of old age?

At the opposite end of the span of life are the children. Pediatrics is a field that is scarcely touched by the general practitioner. A recent study of a series of mothers of young children (*Long Island Medical Journal,* July, 1925), showed that only now and then did one consult her family doctor, for advice regarding feeding, sleep, recreation, and other conditions affecting her offspring, unless the child was actually sick. Also it was found that few doctors cared to have mothers bring their well children to their offices, and many doctors had even told mothers to go away and forget the children's troubles for they would soon be outgrown. Preventive pediatrics is a neglected field which doctors could cultivate with great benefit to themselves as well as to their patients.

Physiotherapy is a branch of medicine that belongs to physicians and they are beginning to realize their duties to relieve backaches and leg pains, and all the uncomfortable states that quacks promise to ease. It requires money to purchase the necessary apparatus, and time to apply treatments. But patients are satisfied when they leave the office with limber joints and happy faces; and they come back in a day or two for more treatment. Those doctors who practice physiotherapy seriously have full waiting rooms. Doctors in general practice should make use of physiotherapy for the sake of the honor of their profession, if for no other reason.

Especially should hospitals provide the equipment for giving treatments in physiotherapy; and medical schools should give instruction in the various methods which any general practitioner can apply.

Psychiatry is a vast field that doctors neglect. The world is full of neurasthenics who seek in vain for mental therapy from general practitioners, and many find satisfaction in the mental suggestions of Christian Science readers. The state hospitals have many cases whose insanity could have been prevented by the methods of applied psychology which general practitioners could readily learn to apply.

The people look to their family doctors to advise them in all medical matters. The methods of relief and prevention are available to all doctors. It is the duty of physicians to cover the neglected fields of practice in which they could readily become proficient.—*New York State Journal,* Jan. 15, 1926.

Each month we shall print here what we deem to be a leading editorial chosen from those printed in other journals, particularly the state medical journals.

DALLAS SESSION, A. M. A.

The General Meeting, which constitutes the opening exercises of the Scientific Assembly of the Association, will be held Tuesday evening, April 20, 1926, at 8:30. The sections will meet on Wednesday, Thursday and Friday, April 21, 22 and 23, 1926.

CONVENING AT 9:00 A. M. THE SECTIONS ON

Surgery, General and Abdominal.
Ophthalmology.
Diseases of Children.
Pharmacology and Therapeutics.
Nervous and Mental Diseases.
Dermatology and Syphilology.
Gastro-Enterology and Proctology.
Radiology.

CONVENING AT 2:00 P. M. THE SECTIONS ON

Practice of Medicine.
Obstetrics, Gynecology and Abdominal Surgery.
Laryngology, Otology and Rhinology.
Pathology and Physiology.
Urology.
Orthopedic Surgery.
Preventive and Industrial Medicine and Public Health.

REGISTRATION DEPARTMENT

The Registration Department will be open from 8:30 A. M. until 5:30 P. M. on Monday Tuesday, Wednesday and Thursday, April 19, 20, 21 and 22nd, and from 8:30 A. M. to 12:00 noon on Friday, April 23, 1926.

HOUSE OF DELEGATES

The House of Delegates will convene at 10:00 A. M. on Monday, April 19, 1926, on the Roof Garden, The Baker Hotel.

THE PRESIDENT'S PAGE

Joseph F. Baird

PERIODIC HEALTH EXAMINATIONS

Each member of the State Medical Society has received a copy of "A Manual for the Conduct of Periodic Health Examinations". This manual has been most carefully prepared by a special committee provided by the House of Delegates of the American Medical Association and should be conscientiously read and studied by every physician.

It is the policy of the American Medical Association to have the family physician conduct these periodic health examinations. If we, as physicians, do not take up and carry out this work as we should, it will be taken up by certain corporations already in the field who make contracts with physicians to make these examinations for a small fee, charging the patients several times as much for the examinations as they pay the doctors for making them. These organizations act as "jobbers" of the physician's services and plan to make a handsome profit for their stockholders by acting as a "go between" the doctor and his patient. Surely such a condition should not be aided or encouraged by any member of the profession.

Another condition which may arise is foreshadowed by the development of various lay organizations fostering free clinics for heart diseases, goitre, nutritional diseases, etc., for which physicians are expected to furnish the knowledge while the lay organizations get the credit for the work carried on. Surely it seems that the inroads already made upon the physician's services should be an incentive for the medical profession to take the lead in these matters.

It would be a good plan for each county medical society to devote at least one meeting this year to a consideration of the subject of periodic health examinations.

THE NEXT ANNUAL MEETING

The program for the next annual meeting of the State Medical Society is now being arranged. The plan is to have each half day session devoted to one definite subject, the program to consist of two or three papers followed by a clinic on the same subject. This general plan will be followed throughout the entire meeting. This program should be of interest to every physician in the state, no matter where located and what line of practice he is following. **Begin now making your plans to be in Madison September 15th, 16th, and 17th.**

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1926

JOSEPH F. SMITH, Wausau, President
CARL HENRY DAVIS, Milwaukee, 1st Vice-President
W. E. FAIRFIELD, Green Bay, 2nd Vice-President
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Mr. J. G. CROWNHART, Executive Secretary, 153 Oneida Street, Milwaukee

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4th Dist., W. Cunningham - Platteville

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6th Dist., F. G. Connell - - - Oshkosh

TERM EXPIRES 1926
7th Dist., Edward Evans - - LaCrosse
8th Dist., T. J. Redelings - - Marinette

TERM EXPIRES 1927
9th Dist., Joseph Smith - - - Wausau
10th Dist., R. E. Mitchell - Eau Claire

TERM EXPIRES 1928
11th Dist., J. M. Dodd - - - Ashland
12th Dist., Hoyt E. Dearholt - Milwaukee

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The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Secretary
Ashland-Bayfield-Iron	C. O. Hertzman, Ashland	R. L. Gilman, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	C. C. Post, Barron	D. L. Dawson, Rice Lake.
Brown-Kewaunee	F. J. Gosin, Green Bay	F. M. Harris, Green Bay.
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Columbia	A. F. Schmeling, Columbus	H. E. Gillette, Pardeeville.
Crawford	W. W. Coon, Gays Mills	T. E. Farrell, Seneca.
Dane	Louis Fauerbach, Madison	R. B. Montgomery, Madison.
Dodge	J. F. Brown, Waupun	A. A. Hoyer, Beaver Dam.
Door	John Hirschboeck, Forestville	T. C. Proctor, Sturgeon Bay.
Douglas	V. E. Ekblad, Superior	E. E. Carpenter, Superior.
Eau Claire and Associated Counties	G. W. Beebe, Eau Claire	H. M. Stang, Eau Claire.
Fond du Lac	M. M. Scheid, Rosendale	D. N. Walters, Fond du Lac.
Grant	E. C. Howell, Fennimore	M. B. Glasier, Bloomington.
Green	J. L. Fleek, Brodhead	J. F. Mauermann, Monroe.
Green Lake-Waushara-Adams	B. E. Scott, Berlin	A. J. Wiesender, Berlin.
Iowa	D. B. Hamilton, Ridgeway	M. W. Trentzsch, Highland.
Jefferson	W. C. Becker, Watertown	A. C. Nickels, Watertown.
Juneau	C. A. Vogel, Elroy	A. T. Gregory, Mauston.
Kenosha	W. C. Stewart, Kenosha	H. A. Binnie, Kenosha.
La Crosse	E. H. Townsend, La Crosse	N. P. Anderson, La Crosse.
La Fayette	H. B. Moe, Blanchardville	W. W. Peck, Darlington.
Langlade	E. G. Bloor, Antigo	J. C. Wright, Antigo.
Lincoln	E. K. Morris, Merrill	W. H. Bayer, Merrill.
Manitowoc	C. L. R. MacCollum, Manitowoc	L. J. Moriarty, Two Rivers.
Marathon	E. M. Macauly, Wausau	J. M. Freeman, Wausau.
Marinette-Florence	T. J. Redelings, Marinette	M. D. Bird, Marinette.
Milwaukee	S. J. Seeger, Milwaukee	E. L. Tharinger, Milwaukee.
Monroe	H. B. Johnson, Tomah	H. H. Williams, Sparta.
Oconto	C. W. Stoelting, Oconto	R. S. Elliott, Gillett.
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Rock	E. B. Brown, Beloit	G. K. Woell, Janesville.
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Waukesha	Thomas Miller, Oconomowoc	S. B. Ackley, Oconomowoc.
Waupaca	T. E. Loope, Iola	A. M. Christofferson, Waupaca.
Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
American Medical Association	Olin West, Chicago	Milwaukee, April 14
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis	Madison, March 13-14
Medical Examiners	R. E. Flynn, La Crosse	Dallas, April 19-22
Milwaukee County Medical Society	E. L. Tharinger	Pfister Hotel, 8:15, March 12
Milwaukee Academy of Medicine	D. E. W. Wenstrand	558 Jefferson, 8:15, March 23
Milwaukee Neuro-Psychiatric Society	W. T. Kradwell	Athletic Club, 6:30, March 25
Milwaukee Oto-Ophthalmic Society	Edward Ryan	Univ. Club, 6:30, March 16

BROWN-KEWAUNEE

The members of the Brown-Kewaunee County Medical Society met at a dinner meeting at Hotel Beaumont on February 2nd. Dr. W. H. Bartran presented a paper on "Digestive Disturbances Accompanying a Diseased Pancreas." Drs. R. M. Carter and I. E. Levitas opened the discussion—F. M. H.

DANE

The Dane County Medical Society held its regular meeting on February 17th at the Monona Hotel, Madison. Following a six-thirty dinner Dr. H. E. Marsh spoke on "Use of Novasurol in Treatment of Oedemas." Dr. E. Sevringhaus gave a paper on "Sugar Metabolism in Non-Diabetic Cases."—R. B. M.

GREEN LAKE-WAUSHARA-ADAMS

Dr. B. E. Scott of Berlin was elected president and Dr. A. J. Wiesender, also of Berlin, secretary-treasurer of the tri-county medical association at its annual meeting and banquet on January 22nd at the Grand View Hotel, Ripon. Other officers chosen for the ensuing year were: Dr. John S. Foat, Ripon, vice-president; Dr. J. M. Johnson, Ripon, censor; Dr. W. E. Buckley, Redgranite, delegate, and Dr. H. A. Schultz, Ripon, alternate. It was decided to have more gatherings of this group of physicians together with members of the dental fraternity, one to be held at Berlin and one at Ripon.

—A. J. W.

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society met on Thursday evening, February 18th, at the Old English Grill, Marinette, where dinner was served at 6:15. Dr. Damon A. Brown and Dr. Roy A. Barlow of Madison spoke before the society. Dr. Brown gave a report on the use of Hexyl-resorcinol as a urinary antiseptic in sixty-five cases of urinary tract infections. "Recent Observations in a Study of Stomatitis" was the subject presented by Dr. Barlow.—M. D. B.

MILWAUKEE

The February meeting of the Milwaukee County Medical Society was devoted to a short review of the recent advances in the basic sciences, bearing on clinical medicine by the full time professors of Marquette University Medical School. Dr. E. L. Miloslavich, Prof. of Pathology and Bacteriology, spoke on Human Pulmonary Tuberculosis, Arterio-sclerosis, Gall Bladder Diseases, and Gastric Ulcer and Carcinoma; Dr. P. F. Swindle, Prof. of Physiology, on: Chronaxie of Lapicque, Artificially Produced Tonus; Gastric Physiology, and Internal Secretion; Dr. Joseph C. Bock, Prof. of Physiological Chemistry, on: Accessory Food Factors—Ultra Violet Irradiation, and Cholesterol—Micro-analytical Progress—Outlook; Dr. H. Beckman, Prof. of Pharmacology, on: Lipiodol in Cerebral Localization; Carbon Dioxide as an Adjunct to Anesthesia, and Recent Work on Mercurochrome, Phenylhydrazine and Margosa Oil; Dr. Eban J. Carey, Prof. of Anatomy, on: Dead House vs. Living Anatomy, Change from Static to Dynamic Viewpoint in Teaching and Investigation of Anatomy, Contributions of Anatomy to the Discovery of Insulin, Intravital Staining-Reticulo Endothelial System of Cells and Motor Nerve of Diaphragm.

The following scientific program has been arranged for the society's March, April and May meetings:

March 12th, Dr. T. H. Shastid, Duluth, will discuss "Animals' Eyes and What They Tell Us of Our Own," and Prof. M. F. Guyer, Prof. of Zoology, University of Wisconsin, will speak on "The General Problem of Heredity and Eugenics."

April 9th, Dr. O. R. Lillie, Milwaukee, will present a paper on "Fractures of the Femur," and Prof. Harry Gideon Wells, Prof. of Pathology, and Director of the Otho S. A. Sprague Memorial Institute, University of Chicago.

May 14th, Dr. Franklin H. Martin, Chicago, Secretary General, American College of Surgeons, subject to be announced later.—E. L. T.

RACINE

The members of the Racine County Medical Society met in the classroom at St. Mary's Hospital, Thursday evening, February 11th. Dr. Damon A. Brown gave the address of the evening. His subject was "Hexyl-resorcinol as a Urinary Antiseptic."—S. J.

ROCK

The Rock County Medical Society held its January meeting Tuesday evening, the 26th, at the Grand Hotel, Janesville, where a dinner was served the thirty-one physicians in attendance. Dr. Carl Harper, Madison, gave a lecture on "Sterility" and Dr. Damon Brown, also of Madison, reported on "One Hundred Cases of Urinary Tract Infection and the New Urinary Antiseptic." The Rock County Dental Society united with the physicians for the February meeting.—G. K. W.

GREEN BAY ACADEMY OF MEDICINE

The regular monthly meeting of the Green Bay Academy of Medicine was held at the Bellin Memorial Hospital on February 10th. Dr. A. J. McCarey read an interesting paper on "Physical Examinations." This paper was discussed by Drs. R. W. Kispert and Otis W. Saunders. Plans are being made for an interesting and instructive annual meeting to be held on May 12th. This meeting will be open to all physicians of Green Bay and surrounding cities.—E. G. N.

MILWAUKEE ACADEMY OF MEDICINE

The Milwaukee Academy of Medicine met on February 9th at the Health Service Building, where Dr. N. M. McBeath, Milwaukee, gave a case report on "Treatment of Toxemia of Pregnancy with Ultra Violet Rays." Dr. N. C. Gilbert, Chicago, presented a paper on "Angina Pectoris."

At the second meeting of the month, held February 23rd, Dr. C. W. Morter and Dr. S. H. Lippitt presented a paper on "Congenital Intestinal Obstruction," with report of two cases in one family. The discussion was opened by Dr. C. A. Evans and Dr. G. H. Fellmann. Dr. Erwin R. Schmid, Prof. of Surgery, University of Wisconsin, spoke on "Pituitary Tumors," with report of an unusual case.—D. E. W. W.

MILWAUKEE NEURO-PSYCHIATRIC SOCIETY

Dr. Clarence Neymann, Associate Professor of Psychiatry, Northwestern University Medical School, Chicago, was the speaker of the evening at the meeting of the Milwaukee Neuro-Psychiatric Society, held on February 25th. His subject was "The Psychoanalytic Treatment of Mental and Nervous Conditions with Clinical Demonstrations" A Dutch dinner was served at 6:30 following which the above mentioned program was presented.—W. T. K.

There will be a meeting of the Milwaukee Neuro-Psychiatric Society at the Milwaukee Athletic Club on Thursday evening, March 25, 1926. Dr. Stanley J. Seeger (by invitation) will be the speaker of the evening, his subject being, "Some Impressions of Neurologic Surgery in London." Dr. Benjamin B. Rowley will read a paper on, "The Anatomy and Physiology and Clinical Syndromes of Basal Ganglia." There will be a Dutch treat dinner at 6:30. The regular meeting will be called at 8:00 o'clock.—J. F. W.

MILWAUKEE OTO-OPHTHALMIC SOCIETY

The members of the Milwaukee Oto-Ophthalmic Society met at the University Club on February 16th. A dinner preceded the following program: "The Anatomy of the Membrana Tympani," Dr. W. H. Halsey; Dr. T. L. Tolan reported three cases of "Acute Mastoiditis with Intestinal Disturbances;" and Dr. W. H. Halsey reported three cases of "Acute Mastoiditis, Associated with Pneumonia, in Children."—E. R. R.

NEWS ITEMS AND PERSONALS

The interns of Milwaukee (Passavant) Hospital have organized, and will meet the second Monday of each month at 8:00 p. m. for the purpose of discussing current, scientific material to be presented by former as well as present interns. Staff members and former interns are cordially invited to attend.

Dr. G. J. Flanagan of Kaukauna entertained the members of the Outagamie County Medical Society at dinner in his new office building at Kaukauna Tuesday evening, February 16th. The party was in the nature of a "housewarming" and about twenty-five Appleton physicians attended the dinner.

Dr. Clarence E. Wheeler, Milwaukee, is being held under bond of $1,000, following his arraignment on charges of illegal sale and possession of narcotics.

Dr. Harry G. Oakland, medical examiner for the Fire and Police Commission of Milwaukee for the past ten years, resigned his position recently. The fire department of Milwaukee has three staff physicians and the police department has five on a part time basis, with an annual salary of $1,000 each.

The permit to prescribe liquor for medicinal purposes of Dr. Harry A. Beckman, Milwaukee, was recently revoked, according to an announcement by E. C. Yellowley, district prohibition commissioner at Chicago.

A gift of $50,000 to the Milwaukee University School was made by Dr. and Mrs. Joseph Schneider, Milwaukee, during February. The gift will be applied on the new school building.

Announcement has been made of the appointment of the Advisory Board of the Johnston Emergency Hospital by Dr. John P. Koehler, Milwaukee Health Commissioner. Those appointed are: Drs. Eleanore Cushing-Lippitt, Paul M. Currer, Stephen Cahana, L. G. Tisdale, O. R. Lillie and Ald. O. A. Olsen and James McCormick.

Dr. M. G. Spawn, Beloit, has recently retired from practice due to ill health, after thirty-six years of service in Beloit and vicinity. Dr. H. A. Raube will succeed Dr. Spawn in his office. He is a graduate of Rush Medical School and has also attended the University of Wisconsin. Dr. Raube was formerly with Dr. C. F. N. Schram at Fairbanks, Morse and Company.

The natives of the Pacific islands cannot withstand the advances of civilization, according to Dr. Robert

Millard, who has just returned from a three years' stay in Honolulu to take up post-graduate work at the Wisconsin General Hospital. "Tuberculosis and other diseases peculiar to the white man, inter-marrying with other races, as well as the increased difficulty of earning a living are proving too much for the brown man. There were nearly 125,000 natives on the Hawaiian Islands 100 years ago. Now there are only 23,000 full-blooded Hawaiians."

Dr. Millard was firm physician for the Hawaiian Pineapple Company after he graduated from the University of Pennsylvania.

Dr. William H. Neumann, Sheboygan, has gone to Boston for a six weeks' course in eye, nose and throat surgery. Each year twelve men are selected throughout the United States to engage in this work at Harvard University and Dr. Neumann was one of those chosen for this purpose for 1926.

Dr. T. D. Greene spoke at the Yates-American plant, Beloit, recently on "The Gateway of Health." Dr. Greene said that the mouth can be the gateway of death as well as of health. "It is true that many of us dig our graves with our teeth." His address was given to the men of the plant during their lunch hour.

More than a hundred physicians and surgeons from Dane, Sauk and Rock counties attended the "Dinner to the Doctors" given on February 11th in the banquet room of St. Mary's hospital, Madison, as part of the dedicatory services of the new additions. In the absence of Dr. W. F. Lorenz, President of the hospital staff, Dr. Joseph Dean read the address written by Dr. Lorenz.

Each speaker during the evening gave high praise to the Sisters for their untiring work in bringing the hospital to its present state. A six-course dinner was served the physicians and during the banquet several musical numbers were presented.

Dr. C. C. Edmondson of the staff of the Spa Sanitarium, Waukesha, spoke before the Knights of Columbus recently. His topic was "The Human Machine." This is one of a series of talks on health which have been scheduled.

At least 250 more sanatorium beds for tuberculous patients are needed in Wisconsin, according to an article appearing in a recent issue of The Crusader, the monthly magazine published by the Wisconsin Anti-Tuberculosis Association.

Wisconsin has twenty public and private tuberculosis sanatoria and every one is now full to overflowing. In 1924 Wisconsin had 1,768 deaths from tuberculosis, and there are 1,500 beds for the tuberculous in the state. The generally accepted minimum standards in health work require a sanatorium bed for every death in a given community or area.

Dr. and Mrs. J. P. Gillis, Antigo, have left for Los Angeles, Calif., where the doctor will become associated with his brother in the practice of medicine.

Dr. Stephen Cahana and Dr. Felix Baur have been appointed fire department physicians of Milwaukee. Dr. Cahana is a member of the staff of the Emergency hospital and of the faculty at Marquette University Medical School. Dr. Baur is a graduate of the Chicago College of Medicine and Surgery and was formerly city physician at Wausau.

With Dr. James Cavancy, the new appointees will look after the physical well being of the personnel of the department and attend all second and third alarm fires.

Dr. Otho Fiedler, Sheboygan, was reelected president of the State Board of Health; Dr. Joseph Dean, Madison, was reelected vice-president, and Dr. C. A. Harper reelected as state health officer, according to announcement from the State Board of Health.

Dr. W. J. Winnemann, Milwaukee, has been appointed assistant chief of staff of the Deaconess Hospital of that city. Dr. Winnemann is a son of Dr. F. A. Winnemann, Merrill health officer.

Wisconsin will manufacture its own silver nitrate solution, heretofore purchased from eastern laboratories, for the prevention of blindness in babies.

Sanction to have this product manufactured by the State Laboratory of Hygiene was granted by the State Board of Health. The state has been paying about 3½ cents per ampule. It is distributed free to physicians, hospitals and midwives.

At a monthly meeting of the medical staff of the Bellin Memorial Hospital, Green Bay, Dr. J. T. Oliver presented a paper on "Preventive Medicine." Preceding the address a banquet was served by the nurses of the institution.

Regulations to safeguard the sale of oysters in Wisconsin and prevent oyster-borne typhoid fever have been adopted by the State Board of Health. The board expressed confidence that with enforcement of the new code, the oyster supply will be safer than ever before.

Oysters coming into Wisconsin from a state not having a certifying system approved by the United States public service, and oysters coming from non-certified sources, must be chlorinated either before reaching Wisconsin or afterwards, but before being placed on sale.

Dr. and Mrs. J. C. Blair of Hazel Green are spending the winter in Florida. The doctor has been in ill health for some time and will enjoy a much needed rest.

Dr. H. E. Fillback, formerly of Montfort, has now established his practice at Burbank, Calif.

"The number of diphtheria examinations made in the state laboratories has been reduced approximately two-thirds in the last three years," declares Dr. W. D. Stovall, director of the State Laboratories of Hygiene. Reported cases and deaths from diphtheria also indicate a remarkable decline in diphtheria.

MARRIAGES

Dr. Wilmer C. Edwards of Richland Center was married to Miss Lucile B. Postel, R.N., on February 19th.

DEATHS

Dr. Ferdinand M. Schultz, former health commissioner of Milwaukee, died at Pasadena, Calif., on February 2nd. At the expiration of his term as health commissioner in 1908, Dr. Schultz became superintendent of the Milwaukee County hospital, serving in that capacity until 1922. He tendered his resignation then because of ill health and moved to California. The physician is survived by his wife, a son and a daughter.

Dr. Manly J. Sandborn, 57, president of the Radiological Society of North America and Chairman of the Section on Radiology of the State Medical Society of Wisconsin, died in Appleton on February 20th. While Dr. Sandborn had not been in good health for some time, he was active until two or three days before his sudden death. The week previously he was in Milwaukee attending a large committee meeting to make preliminary arrangements for the annual meeting of the Radiological Society, which is to be held in that city this fall.

Dr. Sandborn was born in the town of Freedom, Wisconsin, in 1869 and graduated from Lawrence College, receiving his doctor of medicine degree from Northwestern University. Dr. Sandborn has long been a member of the Outagamie County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He was a well-known authority on the roentgen ray and in later years has confined his practice to that phase of medicine. Prior to his election as President of the Radiological Society of North America he was long its secretary.

Dr. Sandborn had served as both secretary and president of the Outagamie County Medical Society and was a member of the Masonic order. He was also president of the Appleton Rotary Club and a member of the Chamber of Commerce. Dr. Sandborn is survived by his wife, a daughter, Ruth, and a son, Lloyd, a student at the University of Illinois.

Dr. Hugh R. T. Ross died September 26th, 1925, at the home of his sister in Toronto, Canada, of chronic myocarditis with hypertension.

Dr. Ross graduated in 1900 from Trinity Medical College of Toronto, located in Ladysmith, Wisconsin, in 1901, where, except for a short interval, he spent his professional life. He was a member of the Rusk County and State Medical Society and the A. M. A., and for the last two years he was president of the staff of St. Mary's Hospital of Ladysmith.

SOCIETY RECORDS

NEW MEMBERS

Briggs, H. A., 129 Wisconsin St., Neenah.
Brussock, W. A., Oshkosh.
Raube, H. A., Beloit.
Evans, James A., La Crosse.
Gorholt, W. R., La Crosse.
Gehring, C. A., La Crosse.
Scherl, Sam., 300 E. Front St., Ashland.
McQuillin, Edward D., New Glarus.
Wood, C. A., Albany.
Visher, J. W., Waukesha.
Nixon, Byron, Kenosha Clinic, Kenosha.
Lowe, Chas. R., Union Grove.
Kurten, R. M., Racine.
Harper, C. W., 284 27th St., Milwaukee.
Cook, Emmett F., Wells Bldg., Milwaukee.
Stack, S. S., Jr., Sacred Heart Sanitarium, Milwaukee.
Hartman, A. S., 439 Mitchell St., Milwaukee.
Peterman, M. G., Milwaukee Children's Hospital, Milwaukee.
Baldwin, L. H., Gillett.
Faulds, R. C., Abrams.
Juster, E. M., New Glarus.
Gatterdam, Paul C., Lutheran Hospital, La Crosse.
Bowes, J. J., Waupun.

CHANGE IN ADDRESS

Seiberth, J., Hollywood, to 540 South Broadway, Los Angeles, Calif.

CORRESPONDENCE

A CORRECTION

Madison, February 16, 1926.

Mr. J. G. Crownhart, Secretary,
State Medical Society,
558 Jefferson Street,
Milwaukee, Wisconsin.

My dear Mr. Crownhart:

My attention has just been called to two errors in the digest of vaccination laws for U. S. and possessions which I made a year ago, and I send the corrections to you to incorporate in your own copy, and to pass on wherever correction can be made.

Very truly yours,
(Mrs.) Lucile McCarthy,
LMc Legislative Reference Library.

The corrections are for Arizona and California. They should read:

ARIZONA: Initiative measure 1918 in session laws 1919. No minor child subject to compulsory vaccination without consent of guardian, but unvaccinated child not permitted to attend school during smallpox epidemic.

CALIFORNIA: Gen. laws 1923 (Deering) Act 6249-6251. Under control of state board of health.

NEPHROSIS

Editor of the Wisconsin Medical Journal:

I am trying to find out how widespread is the condition now known as genuine Nephrosis. I am appealing to my friends of the medical profession in Wisconsin to assist me. The cases I am interested in are characterized by edema, pasty complexion, puffy face, albumen in the urine with few or no granular and fatty casts and no blood, fairly good urinary output with little functional change, and no increase in blood pressure. These are the cases which used to be called subacute or chronic parenchymatous nephritis.

I would esteem it a great favor, if any of those who read this have such a case, to receive a specimen of urine to which has been added a few drops of formalin. It would serve my purpose better if the urine specimen were passed by the patient at a time when he was having considerable albumen in the urine.

Hoping that some one who sees this will come to my assistance and thanking them in advance and also promising them a report upon what is found, I am,

Very truly yours,
Louis M. Warfield,
193 Prospect Ave.,
Milwaukee, Wisconsin.

TRAVEL STUDY

Mr. J. G. Crownhart, Editor,
Wisconsin Medical Journal,
Milwaukee, Wisconsin.
Dear Sir:

The following news item may be of interest to your readers, and we are thanking you in advance for its publication.

Yours very truly,
R. Kovacs,
Secretary.

MEDICAL STUDY TOUR TO EUROPE

The Travel Study Club of American Physicians, founded at the London International Medical Congress of 1913, is announcing plans for its 1926 Study Tour. Sailing from New York on June 12th, the party will visit clinics and medical institutions in the medical centers of Oslo (Christiania), Stockholm, Copenhagen, (optional to Berlin and Munich), Cologne, Heidelberg, Strasbourg, Berne, Zurich, Leysin, Geneva, Paris and London, returning on August 8th. Dr. Louis L. Seaman of New York is president, Drs. Fred H. Albee of New York, Edward B. Heckel of Pittsburgh, John P. Lord of Omaha, vice-presidents. Physicians in good standing, to the limit of fifty, are invited to participate in this tour, and the secretary, Dr. Richard Kovacs, 223 East 68th Street, New York City, will supply any further information desired.

DALLAS SESSION, A. M. A.

To the Officers, Fellows and Members of the American Medical Association:

The seventy-seventh annual session of the American Medical Association will be held in Dallas, Texas, from Monday, April the nineteenth to Friday, April the twenty-third, Nineteen hundred and twenty-six.

The House of Delegates will convene on Monday, April the nineteenth.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, April the twentieth at 8:30 P. M.

The various sections of the Scientific Assembly will meet Wednesday, April the twenty-first at 9 A. M. and at 2 P. M. and subsequently according to their respective programs.

William D. Haggard, President
Frederick C. Warnshuis,
Speaker, House of Delegates.

BASIC EXAMINATIONS

Madison, Wis., Feb. 22, 1926.

Editor, The Wisconsin Medical Journal,
Milwaukee, Wis.
Dear Sir:

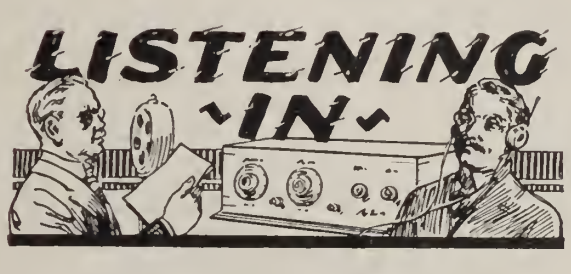
The following notice will probably be of interest to certain of your readers:

The Wisconsin Board of Examiners in the Basic Sciences (human anatomy, physiology, pathology and diagnosis) will hold examinations during the year 1926 as follows:

March 12 and 13, Loraine Hotel, Madison.
May 28 and 29, Hotel Pfister, Milwaukee.
September 17 and 18, Loraine Hotel, Madison.
December 17 and 18, Hotel Pfister, Milwaukee.

Inquiries should be addressed to M. F. Guyer, University of Wisconsin, Madison.

Very truly yours,
M. F. Guyer, Secretary,
State Board of Examiners
in the Basic Sciences.



THE CONNECTICUT LAW

Eight Wisconsin men attended the Annual Congress on Medical Education, Medical Licensure and Hospitals, held at Chicago, February 15th to 18th. Prof. M. F. Guyer, Madison, Secretary of Wisconsin's Board of Examiners in the Basic Sciences, spoke to the Federation of State Medical Boards on this innovation designed to protect the public from fraud, quackery and deceit. It was interesting to note that in Connecticut, where diploma mill graduates have had such easy access, the Grand Jury Committee report after months of study and investigation recommended a bill to the Connecticut legislature that is almost identical with the Wisconsin Basic Science Act. The bill became a law in Connecticut on July 1st, 1925, just sixteen days after enactment of the Wisconsin law. The two laws are so closely allied in practically every detail that it is almost incredible to believe that they were drawn and passed, each state without knowledge of what the other was doing.

Others in attendance at the Congress included Deans L. F. Jermain and C. R. Bardeen; Dr. Robert E. Flynn, Secretary of the Wisconsin Board of Medical Examiners; Dr. O. B. Bock, Chairman of the Committee on Public Policy and Legislation of the State Society; Dr. R. C. Buerki, Madison; Dr. Edward Evans, Chairman of the Council of the State Society; Dr. Gilbert E. Seaman, and your Secretary.

ANNUAL REGISTRATION?

The Federation of State Medical Boards endorsed the plan of annual registration of physicians advocated by

Dr. D. M. Griswold, Commissioner of Health of Iowa. In Iowa a charge of $1.00 is made for this annual re-registration while in Pennsylvania the charge is $2.00. The claim is made that only in this way may holders of spurious diplomas be detected. Other claims are made that the income thus derived can be used to detect quacks. While this question has not come up before the Committee on Public Policy and Legislation or the House of Delegates, your Secretary believes that there is no reason why physicians should be taxed to detect quacks. It would seem that such work is purely in the interest of public health and its expense should be borne by all.

WIDE CIRCULATION

An advertiser recently inquired as to the distribution by states of the Wisconsin Medical Journal. The information compiled will be of interest to every member:

Wisconsin	2045	Ohio	4
Minnesota	9	Maine	1
Iowa	6	Maryland	2
Colorado	2	Michigan	7
Pennsylvania	5	Missouri	7
Florida	1	Georgia	1
California	9	Indiana	7
New Jersey	6	Kentucky	1
Illinois	49	Oregon	1
New York	19	Nebraska	2
North Dakota	3	Massachusetts	3
Washington	3	Louisiana	1
Connecticut	2	Arizona	1
West Virginia	1	Mississippi	1
Virginia	2	Texas	1
South Carolina	2	Canada	4
Washington, D. C.	2		
Arkansas	1	Total	2211

AN ANOMALY

An anomaly in legislation was discovered during February. A physician from Germany who had studied and practiced in the United States for two years was recently licensed in Wisconsin. He applied for a federal permit to secure alcohol only to find that the state law provides that only citizens of Wisconsin shall be entitled to this and other privileges under the state Prohibition Enforcement Act. Thus, we find that while one not a citizen of Wisconsin may practice medicine in this state, he may not avail himself of the privilege extended physicians who are citizens of the state.

PERMIT FEE REDUCED

Physicians of Wisconsin will pay but $1.00 instead of $3.00 when they renew their federal narcotic permit this year. Cancellation of the war-time increase of $2.00 was secured in the new revenue act by the American Medical Association and the cooperative efforts of all state societies.

DEDUCTIONS NOT ALLOWED

Under an interpretation of the federal income tax law in 1922 it was held that a physician might not deduct expenses incurred in attending scientific meetings or in doing post-graduate work. Despite every effort to show that such expenses were ordinary and necessary, the solicitors of the department have maintained that the expenses thus incurred "are but remotely connected with the carrying on of a profession."

Efforts to include a statement clarifying this situation in the new revenue measure were not successful. At the present time your Secretary is corresponding with Senator Lenroot, who has offered to again present the matter to the Treasury Department.

A LITTLE RESUMÉ

During February the Society was asked by a constituent to prepare a statement on the benefits of membership. We reprint it here thinking it may be of interest.

TO THE APPLICANT FOR MEMBERSHIP

That applicants for membership in their county society, and thus in the State Medical Society of Wisconsin and the American Medical Association, may be made acquainted with the aims and work of their society-to-be, this brief statement is issued.

1. Membership in the county medical society is the only portal of entry to the State Medical Society of Wisconsin and the American Medical Association. Upon election to membership in the county society, one automatically becomes a member of his State Society and the American Medical Association.
2. Such membership is a prerequisite for:
   a. Membership on practically all hospital staffs.
   b. Reciprocal licensure in some states.
   c. Fellowship in the American Medical Association, the College of Physicians, the College of Surgeons, Academies of Medicine and practically all allied societies.
   d. Attendance at any session of the Inter-State Post-Graduate Assembly of America.
   e. Appointment to the staffs of many railroad companies and industrial concerns.
   f. Presentation of a scientific paper before the State Medical Society of Wisconsin, or publication of a scientific paper in the Wisconsin Medical Journal.
3. Membership is checked as a reference on applicants for:
   a. Many federal, state and municipal positions.
   b. Reciprocal licensure in most states.
   c. Appointment to staff positions of many industries.
   d. Some applications for official permits.
   e. Malpractice insurance in practically all companies.
4. Members of the State Medical Society of Wisconsin are entitled to:
   a. Attend and participate in the sessions of:
      1. The county medical society.
      2. The State Medical Society of Wisconsin.
   b. Receive the Wisconsin Medical Journal (monthly) and to insert any exchange advertisement therein without charge.
   c. Upon application, and payment of $2.00 annually, to the protection afforded under the Medical Defense plan of the State Medical Society.
   d. The several services of the state office including

1. Package Library and Medical Library Service through the University of Wisconsin.
2. Personal services of the secretary in answering questions or securing material on any subject relating to the practice of medicine. This includes legal questions, information on business houses and institutions, interpretation of state and federal laws, information on licensure, securing special reference material, club rates on magazines and like services.

5. The State Medical Society of Wisconsin represents the group opinion of the profession before the state legislature, state commissions and representatives in congress on questions relating to public health and any phase of licensure and practice in the field of treating the sick. As an example, the State Medical Society of Wisconsin secured the enactment of the Wisconsin Basic Science law, the elimination of the multiple permit fees under the State Prohibition Enforcement Act, and presented to representatives in congress the inherent justice in the request for the repeal of the war increase in the federal narcotic permit fee.

6. The State Medical Society of Wisconsin is engaged in presenting to the non-medical public information to which they are entitled on the progress and attainment of scientific medicine, and the services that individual physicians are prepared to render. As a part of this work the Society:

a. Presents annually 300 subscriptions to Hygeia, a journal of individual and community health, to state and county officers, certain libraries and to prominent and interested laymen.
b. Issues the "Annual Lay Issue" of the Wisconsin Medical Journal with a total circulation of close to 9,000 copies.
c. Maintains a weekly service of carefully prepared articles for every daily paper and 140 weekly papers in the state.

7. The State Medical Society of Wisconsin, through its House of Delegates, council and officers and executive officer, is constantly endeavoring to promote the interest of the public and profession. As an example, the Society recently cooperated with the State Board of Health to present physicians with specially prepared manuals on the subjects of:

a. Periodic Examination of Apparently Healthy Persons.
b. Early Diagnosis of Cancer.

No effort is made to point out the many services available through, and rendered by the American Medical Association. Both the national and state societies are dependent upon the county society as the basic unit of organization. The State Medical Society of Wisconsin is the society of each individual member. It will ever endeavor to represent him truly, to lend him the support of the group in his professional life, to promote his welfare and by so doing the welfare of all other people. The Society has never made, nor will it ever make, a "drive" for members. The statement is issued solely for the information of applicants that they may be acquainted with the aims and work of their society-to-be—a society established in 1841 to "federate and bring into one compact organization the entire medical profession of the state of Wisconsin, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life."

Program and Arrangement Committees Appointed for 80th Annual Meeting at Madison in September

All preliminary arrangements are now completed for the Eightieth Annual Meeting of the State Medical Society to be held at Madison on Wednesday, Thursday and Friday, September 15th, 16th and 17th. The entire meeting will be contained in the new Loraine Hotel, the mezzanine floor of which will be devoted to the meetings and exhibits.

Appointment of the Program and Arrangement Committees early in February was followed by a joint meeting in Madison at which the general plans were discussed and formulated. The members of these two committees are: Committee on Scientific Program—H. P. Greeley, Madison, Chairman; W. D. Stovall, Madison; L. F. Jermain, Milwaukee; J. Gurney Taylor, Milwaukee; Carl Henry Davis, Milwaukee; W. F. Lorenz, Madison, and J. C. Elsom, Madison; Committee on Arrangements—W. D. Stovall, Madison, Chairman; Louis Fauerbach, Madison; R. C. Buerki, Madison; H. P. Greeley, Madison; Joseph Dean, Madison; Arthur Sullivan, Madison, and Carl Harper, Madison. With one exception all members of both committees were present at the joint meeting in Madison together with President Joseph F. Smith and the Secretary.

The three day session will be divided into half day symposia according to plans made. Tentative

subjects for the symposia include pediatrics and obstetrics, surgery and anesthesia, physio-therapy, endocrinology, and protein and vaccine therapy. Invitations are now being issued to those who have been selected, from without Wisconsin, to speak on the several subjects. Each half day session will be concluded with a dry clinic and demonstrations of cases.

The meeting dates selected have been confirmed by the Council and do not conflict, so far as can be ascertained, with other meetings. The dates were selected the first of January.

Plans for an extensive exhibit were completed in February and mailed throughout the country. Fifteen reservations have already been made for exhibit space and while desirable space is still available, it appears that all available booths will be reserved in the near future.

Many committees of the Dane County Medical Society will soon be appointed to handle the many phases of the large meeting. It is anticipated that this meeting will have the largest registration of any annual meeting in the history of the society.

Wisconsin Daily and Weekly Press Make Increasing Use of Society Health News Service

Some one hundred and thirty-seven weekly papers and thirty-three daily papers in Wisconsin are now using the press service established by the State Medical Society the first of the year. News stories on health are issued weekly under the supervision of the Committee on Health and Public Instruction and from clippings received it is apparent that the service meets with favor. The stories are released for publication on every Wednesday and eight stories were released up to the first of March. The stories released dealt with the following subjects: Wisconsin's Record in Preventive Medicine, Decreasing Deaths from Communicable and Contagious Diseases, Some Causes of Heart Diseases, A Warning Not to Neglect the Common Cold, Importance of Preventing Rickets in Children, The Danger of Carbon Monoxide Gas, The Pneumonia Season, and one on How Milwaukee Stamped Out Smallpox by Vaccination.

Many Wisconsin papers have used editorials simultaneously with publication of the stories. A typical editorial appeared in the Oshkosh Northwestern and is reprinted herewith.

THE TOO "COMMON COLD"

Perils lurk in "common cold." If a person contracts a cold, it should be treated with respect. He should go to bed, secure rest—and, with children, this should be followed literally—take a hot foot-bath, hot drinks to promote sweating, a purge, and call a physician if at all severe. Children who have a severe cold should not be permitted to attend school.

That is the enacting clause of a warning sent out by the Wisconsin state board of health, which appears in The Northwestern today.

Largely, no doubt, because of the fact that the common cold, like the poor, we have always with us, there is a popular tendency to regard it with far less concern than the facts warrant. But the wide and certainly painful experience of Oshkosh, the last few weeks, affords abundant testimony that the ailment named is not to be underrated, or dismissed with a wave of the hand.

Physicians and managers of industrial establishments are fully aware that what is called a common cold is responsible for more enforced absence from work than any other malady. And, besides its unpleasant manifestations, it is classed as a serious menace to life, since it weakens the subject and makes him susceptible to the ubiquitous and hostile pathogenic germ.

Thus far, medical research has failed to determine the exact cause of the common cold, or to develop a specific. In a report to the Gorgas Memorial institute, Dr. Isaac A. Abt, professor of children's diseases at Northwestern university, asserts that the use of vaccines for colds is of questionable value, and that the problem of prevention remains unsolved.

However, efforts to isolate the germ go on. But, in the meantime, it will be profitable to study the suggestions of the state board of health, which, as stated, are printed in today's Northwestern.

But one adverse comment has been received. The following editorial appeared in the Pittsville Record on February 4th.

The Record will, from time to time, publish articles on general health which have been prepared by what is known as the health committee of the State Medical Society of Wisconsin.

That is, we will publish them until such time as they become suggestive or imperative, if they do. Knowing this society as being one of the best established and strongest in the state we have reason to believe that the strength and establishment of the concern is not always conductive to the general good of the people of the state.

A strong lobby at Madison whenever the legislature is in session and possibly at all other times is suggestive of things that are not strictly on the surface, and it is general knowledge that the tyranny with which this organization has ridden chiropractic and like measures before the legislature emanates not from the greatest

good to the greatest number but from personal grievance and personal gain.

And so, taking these things into consideration, and believing that it is but another way of cheap advertising for the M.D.'s, we give our readers this caution: take it for what it is worth.

Present subscribers to this free service are listed herewith for the information of the members. The service is available to any paper in the state upon request forwarded to the Secretary.

WEEKLY PAPERS

Union, Augusta
The Leader, Arcadia
Amherst Advocate, Amherst
Free Press, Amery
Athens Printing Co., Athens
Bayfield Co. Press, Bayfield
Journal, Berlin
Farm News, Black River Falls
News, Baraboo
Bruce News Letter, Bruce
Boscobel Dial, Boscobel
Brodhead News, Brodhead
Record, Bloomington
Brillion News, Brillion
Brooklyn Teller, Brooklyn
Baldwin Bulletin, Baldwin
Blair Press, Blair
Dane Co. News, Black Earth
Bloomer Advance, Bloomer
Cadott Sentinel, Cadott
J. M. Klauer, Cassville
Phonograph, Colby
Campbellsport News, Campbellsport
Chetek Alert, Chetek
Cudahy Tribune, Cudahy
Cornell Courier, Cornell
Advance, Clayton
News Herald, Cuba City
Clinton Times Observer, Clinton
Recorder, Cochrane
Columbus Republican, Columbus
Messenger, Colfax
Chilton Times, Chilton
Cumberland Advocate, Cumberland
News, Cedarburg
Cambridge News, Cambridge
Forest Republican, Crandon
Weekly Index, Dousman
Deerfield News, Deerfield
Weekly Clarion, Dorchester
Press, Denmark
Bi County Argus, De Soto
Courier Wedge, Durand
Delavan Republican, Delavan
Review, Evansville
Marquette Co. Epitome, Endeavor
East Troy News, East Troy
Frederic Star, Frederic
Jefferson Co. Union, Ft. Atkinson
Fennimore Times, Fennimore
Buffalo Co. Republican, Fountain City
Gillett Times, Gillett
Enterprise, Glidden
Hammond News, Hammond
Horicon Reporter, Horicon
Sentry Enterprise, Hillsboro
Hartford Press, Hartford
Enterprise, Humbird
Willie Kaul, Hustisford
News Wave, Independence
Juda Community News, Juda
Jefferson Banner, Jefferson
Kewaunee Co. Press, Kewaunee
Tri County Record, Kiel
Events, Kilbourn
Herald, Lancaster
La Farge Enterprise, La Farge
Loyal Tribune, Loyal
Lomira Review, Lomira
Luck Enterprise, Luck
Markesan Herald, Markesan
Advertiser, Marion
Dunn Co. News, Menomonie
Catholic Citizen, Milwaukee
Merrill Star Advance, Merrill
Melrose Chronicle, Melrose
Mondovi Herald News, Mondovi
The Times, Monroe
Journal Telephone, Milton Junction
Minocqua Times, Minocqua
Times Argus, New Lisbon
Necedah Republican, Necedah
New Holstein Republican, New Holstein
Oconto Falls Herald, Oconto Falls
Oshkosh Normal Advance, Oshkosh
Journal Printing Co., Oxfordville
La Crosse Co. Record, Onalaska
Osceola Sun, Osceola
Oconomowoc Enterprise, Oconomowoc
Observer, Oregon
Oconto Co. Reporter, Oconto
Grant Co. News, Platteville
The Bee, Phillips
Park Falls Independence, Park Falls
The Record, Pittsville
Homecroft Printers, Policy
Enterprise, Palmyra
Poynette Press, Poynette
Pepin Herald, Pepin
Chronotype, Rice Lake
Free Press, Reedsburg
Rosholt Review, Rosholt
Journal, River Falls
Ripon Press, Ripon
Herald, Rib Lake
Republican Observer, Richland Center
Randolph Advance, Randolph
Shawano Co. Leader, Shawano
Standard Press, St. Croix Falls
Stanley Republican, Stanley
Countryman, Sun Prairie
Washburn Co. Register, Shell Lake
Sheboygan Co. News, Sheboygan Falls
The Sun, Spring Valley
Reinik, Stevens Point
Tomah Journal, Tomah
Chronicle, Tigerton
Leader, Tomahawk
Thorpe Center, Thorpe
Taylor Weekly Herald, Taylor
Waterford Post, Waterford
Wauzeka Chief, Wauzeka
Clintonville Tribune, Wittenberg
Westby Times, Westby
West Allis News, West Allis
Walworth Times, Walworth
Waterloo Courier, Waterloo
The Times, Whitehall
Whitewater Register, Whitewater
News, West Bend
Wittenberg Enterprise, Wittenberg
Weyauwega Chronicle, Weyauwega
Nonpareil Journal, West Salem
Waushara Argus, Wautoma
Waupaca Co. Post, Waupaca
Waunakee Tribune, Waunakee
Waupun Leader & News, Waupun

DAILY PAPERS

Ashland Press, Ashland
Antigo Daily Journal, Antigo
Daily News, Beloit
The Telegram, Chippewa Falls
Journal Democrat, De Pere
Daily Telegram, Eau Claire
Eau Claire Leader, Eau Claire
Daily Commonwealth, Fond du Lac
Fond du Lac Reporter, Fond du Lac
Press Gazette, Green Bay
Janesville Gazette, Janesville
Kenosha Evening News, Kenosha
Milwaukee Herald, Milwaukee
Wisconsin State Journal, Madison
Capital Times, Madison
Milwaukee Journal, Milwaukee
Marshfield News, Marshfield
Wisconsin News, Milwaukee
Milwaukee Sentinel, Milwaukee
Eagle Star, Marinette
Kuryer Polski, Milwaukee
Manitowoc Times, Manitowoc
Manitowoc Herald News, Manitowoc
Daily News Times, Neenah
Daily Northwestern, Oshkosh
Racine Times Call, Racine
Reedsburg Times, Reedsburg
Journal News, Racine
Evening Telegram, Superior
Sheboygan Press, Sheboygan
Stoughton Courier Hub, Stoughton
Waukesha Daily Freeman, Waukesha
Daily Tribune, Wisconsin Rapids

MISCELLANEOUS

Milwaukee Sentinel, Oliver E. Remey, Milwaukee
T. A. Hendricks, 1004 Hume Mansur Bldg., Indianapolis, Ind.
Dr. Frank L. Rector, The Nation's Health, 22 E. Ontario, St., Chicago, Ill.
Dr. John M. Dodson, 535 N. Dearborn St., Chicago, Ill.
Dr. Olin West, 535 N. Dearborn St., Chicago, Ill.

Radiological Society of North America to Hold Annual Meeting at Milwaukee in November

Through the courtesy of the radiologists of Louisiana, Milwaukee will be the convention city for the 1926 meeting of the Radiological Society of North America. While New Orleans was originally given the meeting, they have given it to Milwaukee rather than hold both the section meeting of the A. M. A. and this meeting in the south.

Members of the Milwaukee County Radiological Society will be the official hosts for this international meeting to be held from November 29th to December 3rd inclusive. At a meeting of the Milwaukee Society late in February, representatives of allied societies were guests and preliminary plans were formulated.

The following committees have been appointed to care for this meeting:

EXECUTIVE COMMITTEE

Dr. H. B. Podlasky, Pres. M. C. R. S., Chairman; Dr. C. W. Geyer, Sec. M. C. R. S.; Dr. F. W. Mackoy.

ADVISORY COMMITTEE

Dr. Rock Sleyster Chairman, Vice-Speaker House of Delegates, A. M. A.; Dr. J. F. Smith, Pres. State Med. Society; Mr. J. G. Crownhart, Sec. State Med. Society; Dr. S. J. Seeger, Pres. Mil. County Med. Society; Dr. E. L. Tharinger, Sec. Mil. County Med. Society; Dr. C. H. Davis, Pres. Academy of Medicine; Dr. D. E. W. Wendstrand, Sec. Academy of Medicine; Dr. M. Mortenson, Pres. Mil. Dental Society; Dr. R. Blumenthal, Ex-Pres. M. C. M. S.; Dr. C. R. Bardeen, Dean U. of W. Med. School; Dr. L. Jermain, Dean of Marquette U. Med. School; Col. C. R. Pearsall, Dr. J. C. Sargent, Dr. W. F. Lorenz, Dr. G. L. Bellis, Dr. J. L. Yates, Dr. G. V. I. Brown, Dr. H. M. Brown, Dr. A. J. Patek, Dr. C. A. Evans, Dr. G. Seaman, Dr. W. C. F. Witte, Dr. M. L. Henderson, Dr. D. W. Roberts, Dr. F. J. Gaenslen, Dr. R. Morter, Dr. M. Bornstein.

HOSPITALITY COMMITTEE

Dr. J. McMahon, Chairman, Dr. D. W. Roberts, Dr. C. A. H. Fortier, Dr. Newton Sisk, Dr. W. Ackerman, Dr. J. L. Yates.

SCIENTIFIC EXHIBIT COMMITTEE

Dr. H. R. Foerster, Chairman, Dr. F. Hodges, Dr. I. Josefsberg, Dr. A. M. Dorr, Dr. E. Smith.

COMMERCIAL EXHIBIT COMMITTEE

Dr. J. J. Seelman, Chairman, Dr. W. Sickles, Mr. C. Karrer, Mr. F. McIntosh, Mr. H. Pengelly.

HALL COMMITTEE

Dr. W. Egan, Chairman, Dr. J. A. Froelich, Mr. L. Massapust, Mr. C. Karrer, Mr. F. McIntosh, Mr. H. Pengelly.

HOTEL COMMITTEE

Dr. A. R. Altenhofen, Chairman, Dr. H. Curl.

HOSPITAL AND CLINIC COMMITTEE

Dr. P. S. Epperson, Chairman, Dr. E. Smith, Dr. A. J. Weber.

PUBLICITY COMMITTEE

Dr. C. W. Guyer, Chairman, Dr. A. M. Dorr, Reporter, Dr. H. B. Podlasky, Dr. M. Mortenson, Mr. J. G. Crownhart, Mr. E. L. Fergeson.

RECEPTION COMMITTEE

Dr. G. Stevens, Chairman, Dr. Gentz Perry, and all members of the M. C. R. S.

TRANSPORTATION COMMITTEE

Dr. J. J. Seelman, Chairman, Dr. J. S. Janssen.

ENTERTAINMENT COMMITTEE

Dr. G. W. Stevens, Chairman, Mrs. C. W. Geyer, Chairwoman, and wives of all members of the M. C. R. S.

REGISTRATION COMMITTEE

Dr. H. Curl, Chairman.

JOINT MEETING COMMITTEE

Dr. F. W. Mackoy, Chairman, Dr. W. J. Egan, Dr. R. Blumenthal, Dr. H. M. Brown, Father Fox.

Medical Board Passes on Qualifications of Mid-Year Applicants; Dr. Roy C. Rodecker Succeeds Father

Close to twenty-five applicants for licensure in Wisconsin were examined by the State Board of Medical Examiners at their January meeting held at Madison. Results of the examinations will be announced in the March issue.

Following the meeting of the Board, Dr. C. W. Rodecker, Holcombe, submitted his resignation to the Governor. On January 20th Governor Blaine announced the appointment of Dr. Roy C. Rodecker, son, to succeed his father. His term expires July 1, 1927. A special meeting of the Board will be held in Milwaukee on the second Wednesday in April according to present plans.

"Two applicants were refused the privilege of writing our examination," reports Dr. Flynn, Secretary of the Board; "one because his foreign credentials were unsatisfactory, and the other a Canadian, who had had but one year of pre-medic work. Likewise two applicants for reciprocity were refused a license because their schools of graduation, namely Chicago Medical School and the St. Louis College of Physicians & Surgeons, are not recognized by our board.

"The board voted to hold a special meeting in

Milwaukee April 14, for the consideration of reciprocities and other business. The board voted to raise the endorsement fee to $10 in place of the present $2 charge. They also voted a refund of $35 on reciprocity fees and $15 on examination fees, when credentials were unsatisfactory. Formerly it was the practice to return the entire fee.

"No applicant will be permitted to write our examination in the future without first having satisfied the requirements of the Basic Science Board. This is in strict accordance with the present law. The board ordered a new lithographed certificate similar in design to the present masseurs certificate, to be issued to chiropodists. The present registered chiropodists may procure same by submitting their present certificates and the exchange fee of $5."

Following is a list of those licensed by our state at the last meeting held January 12-14, 1926, in Madison.

Name	Mailing Address	Intended Address
Otto E. Benell, M.D	Frederic, Wis	Frederic, Wis.
Walter P. Blount, M.D	1303 University Ave., Madison, Wis	Sayner, Wis.
Clarence H. Falstad, M.D	411 Taldmadge St., Eau Claire, Wis	Eau Claire, Wis.
Filip C. Forsbeck, M.D	615 Summit Ave., Milwaukee, Wis	Milwaukee, Wis.
Rensselaer B. Hammond, D.O	941 E. 55th St., Chicago, Ill	Racine, Wis.
Frederick C. Heidner, M.D	502 Wells, Bldg., Milwaukee, Wis	Milwaukee, Wis.
Bertha L. Hapke, D.O	1217 53rd St., Chicago, Ill	Kenosha, Wis.
Herman C. Lund, M.D	925 Mound St., Madison, Wis	Madison, Wis.
Ora R. McMurry, M.D	Wis. Gen. Hospital, Madison, Wis	Madison, Wis.
Ernst Pribram, M.D	1400 Grand Ave., Milwaukee, Wis	Milwaukee, Wis.
Fred C. Prehn, M.D	St. Luke's Hospital, Chicago, Ill	Milwaukee, Wis.
Erling A. Smedal, M.D	McFarland, Wis	McFarland, Wis.
Herbert N. Wallace, M.D	925 Mound St., Madison, Wis	Madison, Wis.
Cornelius D. Greulich, M.D	Sussex, Wis	Sussex, Wis.
Howard M. Heffelfinger, D.O	803 E. 61st St., Chicago, Ill	Racine, Wis.
Oscar C. Heyer, M.D	Lincoln Pl. 30, Wauwatosa, Wis	Reedsburg, Wis.
Louis Orban, M.D	State Hospital, Mt. Pleasant, Iowa	Undecided.
William A. Ryan, M.D	200 9th St., Milwaukee, Wis	Milwaukee, Wis.
Thomas K. Brown, M.D	Central State Hospital, Waupun, Wis	Waupun, Wis.
Wilbur J. Downing, D.O	4630 Lake Park Ave., Chicago, Ill	Chicago, Ill.

The following were licensed by reciprocity.

Name	Mailing Address	Reciprocating State	Intended Address
Kristian Egilsrud, M.D	719 Nicolet Ave., Minneapolis, Minn	Minnesota	
Gilbert H. Galford, M.D	82 Fox St., Aurora, Ill	Illinois	Neenah, Wis.
James C. Hassall, M.D	Fair Oaks Villa, Cuyahoga Falls, Ohio	New York	
Scott G. Larabee, MLD	219 Ham Bldg., St. Paul, Minn	Maine	
Annette M. McIntire, M.D	141 Wisconsin St., Milwaukee, Wis	Illinois	Milwaukee, Wis.
Erwin R. Schmidt, M.D	Wis. Gen. Hospital, Madison, Wis	Illinois	Madison, Wis.
John McKelvey Wyatt, M.D	938 Johnson St., Madison, Wis	Tennessee	Madison, Wis.

The following were licensed in Midwifery.

Maria Polacek (Midwife)	Milwaukee, Wis	Milwaukee, Wis.

PRINCIPLES AND PRACTICE OF MEDICINE

J. Gurney Taylor, M.D., *Examiner.*

1. What conditions may cause total suppression of urine (anuria)?

2. Arterio-Sclerosis: (a) Give causes; (b) state general symptoms of cardiac, renal, cerebral and abdominal arterio-sclerosis.

3. Give symptoms, physical signs and treatment of Bronchial or Spasmodic Asthma.

4. Give symptoms and diagnosis of Acute Pancreatitis.

5. Diabetes Mellitus: (a) What conditions influence the appearance of sugar in the urine? (b) Name the prominent symptoms. (c) Outline the treatment.

6. Give primary and secondary causes of Catarrhal Enteritis (Diarrhoea) and symptoms of the acute form, with treatment.

7. Give symptoms, diagnosis and treatment of Paralysis Agitans.

PEDIATRICS

J. Gurney Taylor, M.D., *Examiner.*

1. State conditions making it imperative to remove infant from breast feedings. Given an infant aged four months, where artificial feedings must be employed, outline all necessary procedures and food preparation.

2. Name three (3) anomalies found in the usual

(Continued on page XXVI.)

THE JOURNAL BOOK SHELF

Medical Clinics of North America. New York Number, September, 1925; Volume IX, Number II. W. B. Saunders Company, Publishers, Philadelphia and London.

International Clinics. Volume II. Thirty-fifth Series, 1925. J. B. Lippincott Company, Publishers, Philadelphia and London.

A Manual of Gynecology. By John C. Hirst, M.D. W. B. Saunders Company, Publishers, Philadelphia and London. Second Edition Revised, $3.50 net.

Physical Diagnosis of Diseases of the Chest. By Joseph H. Pratt, A.M., M.D., and George E. Bushnell, Ph.D., M.D. W. B. Saunders Company, Publishers, Philadelphia and London. 1925.

Allergy, Asthma, Hayfever, Urticaria and Allied Manifestations of Reaction. By William W. Duke, Ph.B., M.D. The C. V. Mosby Company, Publishers, St. Louis. With seventy-five illustrations. 1925.

The Crippled Hand and Arm. A monograph on the various types of deformities of the hand and arm as a result from abnormal development, injuries and disease, for the use of the practitioner and surgeon. By Carl Beck, M.D. Illustrations 302. J. B. Lippincott Company, Philadelphia and London, 1925.

Practical Medicine Series. Volume V on Gynecology and Obstetrics. Gynecology edited by Thomas J. Watkins, M.D., F.A.C.S., Prof. of Gynecology, Northwestern University Medical School, Chicago. Obstetrics edited by Joseph B. DeLee, A.M., M.D., Prof. of Obstetrics, Northwestern University Medical School, Chicago. The Year Book Publishers, Chicago. Price per volume, $2.00; price of series of eight volumes, $15.00.

Physiotherapy, Theory and Clinical Application. By Harry Eaton Stewart, M.D., President-elect American Academy of Physiotherapy; Attending Specialist in Physiotherapy, U. S. Marine Hospital, N. Y. Price $7.50. Paul B. Hoeber, Inc., New York.

Methods and Problems of Medical Education. Third series Division of Medical Education, The Rockefeller Foundation, New York, 1925. Under direction of Dr. Richard M. Pearce, 61 Broadway, New York City, N. Y., U. S. A.

A Textbook of Medical Diagnosis. By James M. Anders, M.D., Prof. of Medicine, Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania; and L. Napoleon Boston, M.D., Associate professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Third edition, entirely reset. Octavo of 1422 pages, 555 illustrations. Cloth, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

Old and New Viewpoints in Psychology. By Knight Dunlap, Prof. of Experimental Psychology in the Johns Hopkins University, Baltimore; formerly President of American Psychological Association. Price, $1.50. C. V. Mosby Company, St. Louis, 1925.

The Principles and Practice of Obstetrics. By Joseph B. DeLee. W. B. Saunders Company, Philadelphia and London.

BOOKS RECEIVED FOR REVIEW

Ears and the Man. Studies in social work for the deafened. By Annetta W. Peck, Estelle E. Samuelson and Ann Lehman. F. A. Davis Company, Philadelphia, 1926. Price, $2.00 net.

Nephritis. By Herman Elwyn, M.D., Assisting Visiting Physician, Gouverneur Hospital, New York, N. Y. The Macmillan Company, New York, 1926.

Psychoanalysis and Beyond Psychoanalysis. By Leonard L. Landis, M.D., Editor-in-Chief of the "Life and Health" Magazine. Present National Chairman of the American Association of Independent Physicians.

The Surgical Clinics of North America. Volume V, Number VI. Philadelphia Number, December, 1925. Complete index to Volume 5, 223 pages, 50 illustrations. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

Feeding and the Nutritional Disorders in Infancy and Childhood. By Julius H. Hess, M.D., Prof. and head of the department of Pediatrics, Univ. of Illinois College of Medicine; chief of Pediatric Staff, Cook County Hospital. Illustrated with forty-two engravings in the text and one full-page colored plate. Fourth revised and enlarged edition. Price, $4.50, net. F. A. Davis Company, Philadelphia, 1925.

Since its original publication in 1918, Dr. Hess' book has gained a reputation of excellence exceeded by none of its kind. Its position has been supported by frequent revisions and it is now in its 4th revised and enlarged edition.

Although arranged primarily as a manual for students and teachers the subject matter is extremely comprehensive and includes a moderately detailed discussion on all of the principal phases of infant feeding and of the nutritional disturbances of infancy. In addition to thoroughly covering its subject, this present edition is distinguished by its inclusion of the most recent developments connected with the subject matter. This is especially true in the chapters on Rickets, Scurvy, Spasmophilia, Acidosis and Anemias of Infancy. A short

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chapter is devoted to acidified milks. A chapter on Celiac Disease has been introduced as an added chapter in this edition. The chapter on Acidosis is remarkably well organized and gives a very clear conception of the present day ideas on the etiology and treatment of that condition.

In general this book may be said to be one of the best in its field and it is heartily recommended to all those interested in infant feeding and the nutritional disturbances of infancy and early childhood.—J. E. G.

Ophthalmic Year Book, The. By Edward Jackson and William H. Crisp. Contains bibliographies, digests and indexes of the literature of ophthalmology for year 1923. Volume XX. Geo. Banta Publishing Company, 1924, Menasha, Wis.

This book differs in no way from the previous volumes put out by the American Journal of Ophthalmology. This digest of the literature of Ophthalmology is the most valuable one we have, especially for the American literature. The digests are extremely brief and do not in any way attempt to cover the articles reviewed. They do, however, bring out the gist of the articles and furnish in this way a valuable guide to the original source.—F. A. D.

Manual of Obstetrics. By John Cooke Hirst, M.D., Associate in Gynecology and Obstetrics, Graduate School of Medicine, University of Pennsylvania; Associate in Obstetrics, School of Medicine, University of Pennsylvania. Second Edition, entirely reset. 12mo of 551 pages with 229 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth $4.50 net.

This is an excellent book for brief reference and hasty review, very valuable for the general practitioner and the student. The last edition has been revised completely, is of increased scope and takes up all the latest developments which have evidenced some value.

—C. S. H.

Manual for Diabetics. By Gladys L. Boyd, M. D., Director of Diabetic Clinic and Clinical Assistant, Hospital for Sick Children, Toronto; Research Fellow in Pediatrics, University of Toronto; Assistant Physician to New-Born Clinic, Toronto General Hospital; Pediatrist-in-Chief, Woman's College Hospital, Toronto; Fellow of Canadian Society for the Study of Diseases of Children. And Marion D. Stalsmith, Dietitian to the Diabetic Clinic, Hospital for Sick Children, Toronto. Funk & Wagnals Company, New York and London, 1925.

This book will be of value to all diabetic patients. It is intended to supplement the instructions of the physician rather than take the place of them. In it are explained the causes and symptoms of diabetes and the complications arising from delayed treatment. It also contains many diabetic recipes and helpful menus.

It is written in simple English which can be easily understood. While it does not go into as great detail as some diabetic manuals, it contains the fundamental knowledge that every diabetic patient should have.

—M. G.

Medical Clinics of North America. Volume VIII, Number IV, (Mayo Clinic Number, January, 1925). Octavo of 374 pages with 66 illustrations. Paper $12.00; cloth $16.00. W. B. Saunders Company, Philadelphia and London.

This issue can be held in the same high regard as those published previously. Each article is presented to be of general interest although some of the subjects from the various specialists are treated in their relation to the general field of medicine. Gipner's findings in observing the fundi of 100 cases of multiple sclerosis are interesting, especially as regards the appearance of the pallor of the temporal discs. Rowntree on Liver Functional Tests, Braasch on the "Differential Diagnosis of Diseases of the Urinary Tract," O'Leary on Syphilis, Eusterman, Hartman, Vinson, Robertson and Hargis on Gastro-intestinal conditions and Plummer on "The Iodine Treatment of Goiter" gives some idea of the scope of this issue.—K. L. P.

Surgical Clinics of North America. Clinic of Frank H. Lahey, M.D., Boston. Volume IV, number VI, 166 pages with 43 illustrations, and complete index to volume IV. Paper, $12.00; Cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

This is rather a small volume of 166 pages, excellently bound, printed, and profusely illustrated by splendid half tones.

This number is made up entirely of contributions from the members of the Lahey Clinic in Boston and more than half of the volume is devoted to the consideration of the various aspects of surgery of the thyroid gland. The phases of thyroid surgery which are discussed range from the diagnosis and preliminary treatment of thyroidism, the technique of anesthesia and surgical procedure, complications and sequelae to the after care of thyroid cases.

There are also special chapters dealing with the evolution of a thyroid clinic, aberrant goiter, special treatment of the eyes in exophthalmic goiter, and two excellent chapters on the management of the heart in toxic thyroid states. This group of chapters, although not constituting a complete symposium on diseases of the thyroid, do, however, combine to form a valuable unit of instruction in the management of thyroid toxicity. The ideas presented, although not new, are conservative and sound.

The remaining chapters deal with the various subjects which include discussion of ureteral obstruction, cysts of the kidney, biliary fistulae, duodenal fistulae and functional disease of the colon. These chapters divulge nothing of unusual interest.

This number also contains the complete index to Volume IV.—E. S. S.

The Technic of Local Anesthesia. By Arthur E. Hertzler, A. M., M.D., Ph.D., LL.D., F.A.C.S., Prof. of Surgery in the University of Kansas. Third edition, with 140 illustrations. Price $5.50. C. V. Mosby Company, St. Louis, 1925.

The author states that the purpose of this book is not so much a complete treatise on Local Anesthesia as

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the presentation of his own technique found useful from his large experience. He assumes that the field of local anesthesia is an established one and, therefore, spends no time in its defense. He has divided up his work into twenty chapters, the first on Drugs Employed; the second takes up very fully the Technic of Administration and in the third the discussion of General Operations without anesthesia for these. Then follow chapters on the following:

"Operations on the Scalp, the Cranium and Its Contents, Operations of Face, Jaw and Tongue, Operation on the Ear and Mastoid, Operations of the Gasserian Ganglion and the Trifacial, Operations on the Tonsils, Adenoids, Larynx, Trachea, and Thyroid Gland, Operations on the Mammary Gland, Operations on the Thorax, Lungs and Spine, Abdominal Operations, Operations for Umbilical Hernias, Hernias of the Linea Alba and Scar Hernias, Operations on Hernias, Sacral Blocking, Paravertebral and Spinal Anesthesia, Operations on the Penis and the Scrotum and Its Contents, Operations on the Urethra, Bladder and Prostate, Operations on the Female Organs, Operations about the Rectum, Operations on the Upper Extremities and Operations on the Lower Extremities."

It is a very useful book for anyone who does considerable surgery under local anesthesia.—A. S. C.

Medical and Surgical Report of The Roosevelt Hospital, New York. Second series, 1925, based on the work of the years 1915-1924 inclusive. Price, $5.00. Paul B. Hoeber, Inc., New York City.

The volume contains articles written by members of the visiting staff expressly for the purpose and in addition reprints of papers published in recent Medical and Surgical Journals.

Dr. Charles N. Dowd has illuminating articles on Partial Colectomy, Intestinal Obstruction, Megacolon and Goiter. Ralph Floyd reports a large Mycotic Embolic Arteriovenous Aneurism and has articles on Pneumonic Exudates, Classifications of Bright's Disease, and Relation of Non-Protein Nitrogen and Blood pressure to Kidney and Heart Lesion.

W. W. Herrick gives a review of the Functional Tests of Circulation and gives valuable data on Hypertension and Hyperglycemia. Wm. G. Lyle and Herman Sharbit report the results of over 200 renal functional test meals in Nephritics.

Papers by Charles H. Peck are on Carcinoma of the Colon, Chronic Duodenal and Gastric ulcers, a case of Tuberculous cyst of the Spleen with successful removal, Acute Suppurative Pleurisy, and with W. C. White a Report on Tumors of the Breast.

Other interesting papers are—Pyelitis in Infancy by Rowland G. Freeman, Pyelitis by W. M. Hartshern; Fracture of the Elbow by Condict W. Cutler, Jr., and H. W. Cane; Osteomyelitis by Kirby Dwight; Cerebellar Abscess by A. T. Martin, C. A. McKendree and H. P. Howell; Postoperative Tetany and Vulvae Ulcer by W. P. Healy; Extra-uterine Pregnancy by G. P. Pennoyer; Tuberculous Dactylitis, Edward S. Rymer; Cancer of the Colon by J. I. Russell; Ecchinococcus Disease of the Kidney by J. I. Russell and E. F. Kilbane; Fracture of Femur by Alfred Stillman; End Results of 201 cases of Carcinoma of Cervix by H. C. Taylor and T. C. Peightal; Clinical records with Autopsy reports on Pulmonary cases by Davenport West, and Breast Tumors by W. C. White.—A. S. C.

The Medical Clinics of North America. Volume VIII, Number V, March, 1925 (Boston Number). Octavo of 247 pages and 21 illustrations. Per clinic year (July, 1924, to May, 1925): Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

This volume includes several articles of especial interest to the general practitioner, among which the "Treatment of Malnourished Children in Private Practice," by Dr. L. W. Hill should be noted.

Of timely interest is the work on Exophthalmic Goiter by Dr. C. C. Sturgis which emphasizes the spontaneous course of the disease and the effect of various types of treatment.

The problem of rheumatism by Dr. Channing Frothingham attempts to form a definite opinion as to what the real situation is in regard to this disease over which there is such wide divergence of opinion as to its exact nature.

Of added note is the work of Dr. Reginald Fitz on Diabetes Mellitus in which the clinical problems in the diagnosis and treatment are discussed.—I. G. E.

The Normal Diet. By W. D. Sansum, M.S., M.D., Director of the Potter Metabolic Clinic Department of Metabolism, Santa Barbara Cottage Hospital, Santa Barbara, Calif. A simple statement of the fundamental principles of diet for the mutual use of physicians and patients. Illustrated. Price $1.50. C. V. Mosby Company, St. Louis, 1925.

With our present knowledge of foods, it would be difficult to improve on "The Normal Diet" as written by W. D. Sansum. The volume contains all the essential fundamental principles of an adequate dietary in seventy-two pages, including a bibliography on the principles discussed and an excellent index.

The seven fundamental principles considered are:

1. The normal diet should contain adequate food units or calories to maintain the individual under usual activities at normal weight for sex, age, and height.
2. The normal diet should contain adequate protein.
3. The normal diet should contain adequate amount of bulky residue-containing foods.
4. The normal diet should be so balanced as to prevent acidosis.
5. The normal diet should include adequate amount of mineral containing foods.
6. The normal diet should contain adequate water.
7. The normal diet should contain adequate amounts of the so-called vitamines.

The above seven principles are each briefly and clearly discussed in separate chapters. There is also an excellent diagram on the alimentary tract.

The layman, as well as the physician and the patient,

The Wisconsin Medical Journal

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Chronic Heart Disease*

BY J. A. EYSTER, M.D.

Medical School, University of Wisconsin

In the compensated heart, the seat of an organic lesion, circulation is maintained at its normal level. Diagnosis is an anatomical one and has its rational basis on the differences in prognosis and treatment indicated in the different types of lesions. First there is presented the problem of determining whether or not an organic lesion exists. There is probably no field of medicine in which more mistakes are made than this, notwithstanding the fact that with care it is possible to diagnose the seat and character of a lesion within the heart with a greater degree of precision than with any other organ of the body, with the exception, perhaps, of the central nervous system. Symptoms are of little value and often misleading, because in the compensated heart with a normal circulation there should be no symptoms, and those that may occur from slight circulatory insufficiency, may be due to various other causes and are difficult or impossible to estimate objectively. Diagnosis must be made on the basis of physical findings.

Certain chronic cardiac conditions are relatively easy of diagnosis. Aortic regurgitation with the invariably accompanying left ventricular hypertrophy, usually loud murmur, softening or absence of the aortic second sound, and the peripheral vascular signs, and the double mitral lesion with similar signs of cardiac enlargement, presystolic murmur and long blowing systolic murmur transmitted to the axilla and frequently to the back of the chest, are usually sufficiently striking to be readily determined. It is not, however, the usual thing to be confronted with such simple problems in cardiac diagnosis. The commonest diagnostic problem is the determination of the significance of a systolic murmur, the differentiation between a mitral regurgitation, organic or relative, and the so-called accidental or anorganic murmur of a normal heart. It has long been recognized that mitral regurgitation may result from deformation of the valve structure due to an endocarditis, the so-called organic mitral regurgitation, or from weakening of the valve ring with failure of approximation of the valve leaflets, relative regurgitation—the latter associated with myocardial changes and decrease in muscle tonus. In the second group, the myocardial, there are usually present accompanying signs of myocardial degeneration, arterial vascular changes and perhaps renal changes which help to constitute a positive diagnosis. The greatest difficulty is offered by the organic group, and it is of this that I wish now to speak in some detail. The problem is that of a systolic murmur in an individual without advanced arteriosclerosis and without evidence of myocardial degeneration. These cases are usually below or in early middle age. They have been frequently refused life insurance on account of a systolic murmur, or a murmur has been noted in some other routine examination. Is this murmur due to a lesion of the mitral valve or is it to be classified under the meaningless term of accidental murmur, signifying thereby that we know little of its origin or mechanism, but only know that it is innocuous and clinically unimportant? In other words, has this patient with a systolic murmur, organic heart disease?

It was recognized as early as before the middle of the last century, nearly 100 years ago, that systolic and even diastolic murmurs occurred in hearts which showed no other indications of pathology and which in their subsequent history or at autopsy were entirely normal. Potain, in his classical work on systolic murmurs, published in 1894, stressed this fact, and regarded most if not all of these murmurs as extracardiac or cardiopulmonic in origin. Of 64 cases coming to autopsy from various causes and which manifested during life a loud systolic murmur, in 44 no anatomical basis for the existence of the murmur was found. Thirty-six of these hearts appeared entirely normal and eight showed lesions but not of a type to explain the murmur. Many subsequent

*Presented before the 79th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, Sept. 17, 1925.

writers have emphasized the frequency of accidental murmurs, and yet today too often is the presence of a systolic murmur alone the basis for the assumption or suspicion of cardiac pathology.

In substantiating the existence of mitral regurgitation it is necessary to have clearly in mind the hemodynamic effects of a leaking mitral valve. A certain portion of the blood complement of the left ventricle, which would ordinarily be forced into the aorta during systole, regurgitates into the left auricle. The left ventricle has to contract to a greater extent in order to maintain the normal blood flow through the systemic vascular system. The effect of this increased work is hypertrophy of the musculature of this chamber. Through the leakage back into the left auricle the resistance in the pulmonic circuit is increased, which in time leads to hypertrophy of the right ventricle. The result is a heart more or less uniformly hypertrophied. In order to demonstrate the existence of an organic mitral regurgitation, we must, in addition to the presence of a systolic murmur, constitute the presence of cardiac hypertrophy. The most important consideration therefore appears in the question, can we determine cardiac hypertrophy and within what limits.

In recent years x-ray methods, the teleoroentgenogram and orthodiagram have been introduced to supplement the older methods of physical diagnosis. Determination of normal data and comparisons with hearts, the seat of organic disease, has now reached the point where it may be said that the presence or absence of cardiac hypertrophy may be determined with quite satisfactory accuracy by carefully applied x-ray methods. Like many new methods, it has also renewed interest and stimulated study of older and better known methods, and I am convinced that if carefully and thoughtfully applied, the usual methods of physical diagnosis, taught and practiced for many years, suffice to determine this important matter with almost if not quite equal precision. I should be the last to lightly disparage the use of x-ray methods of mensuration as applied to the heart because of my active interest in this work for a number of years. Two determinations leading to the same conclusion are much more than double the value of one, and if nothing more than confirmatory may be of great help in doubtful cases. It is, however, reassuring to feel that we do not have to depend upon a method which is, and probably always will be, impossible of universal application.

VALUE OF USUAL METHODS

I have recently analyzed 443 cases examined by me in which x-ray data have been compared with determination of cardiac size by the usual methods of inspection, palpation and percussion. In only a fraction over two per cent did the conclusions drawn from the two types of study disagree, and in most instances these were in cases where apparent departure from the normal was so small as to leave a question of its existence by either method. In estimating cardiac size, we are mainly concerned with the left ventricle, because this chamber is enlarged in all but the rarest types of cardiovascular disease in which ventricular hypertrophy occurs, and because of its availability for examination due to its anatomical position in the chest and surface manifestations of activity.

What are the methods of physical examination available to constitute the presence or absence of hypertrophy of the left ventricle and how much reliance can be placed in them? I would place first visual identification and localization of the apex beat. In 54 per cent of 98 normal subjects the apex beat was not visible, while in only 8 per cent was this true in 45 cases of valvular heart disease with ventricular hypertrophy. The mere fact that the apex beat is or is not visible is therefore of considerable significance. In 32 subjects I have recently studied the relation of the visible apex beat to the position of the anatomical apex as marked on the chest by the orthodiagraphic method and also referred each to the midsternal, the nipple and midclavicular lines. Visible and anatomical apex corresponded in 30 per cent and the anatomical apex was inside the visible apex in the remainder or 70 per cent. Location in reference to the midclavicular line was more constant than to either the midsternal or nipple line. The former measurement varies greatly with different shaped chests and the nipple line is very variable in position independent of chest conformation. In 66 per cent of the normal subjects where the apex was localized visually or by palpation it was in the fifth interspace on or within the midclavicular line in 62 per cent, slightly outside in 4 per cent. Excluding cases of mitral stenosis unassociated with ventricular hypertrophy, in 45 cases of aortic and of mitral disease, the apex beat was visible in 92 per cent and was in the sixth inter-

space or outside the midclavicular line in 81 per cent of those. We may conclude, therefore, that in unhypertrophied hearts, the apex beat when visible is within the midclavicular line in 96 per cent to 98 per cent and is outside this limit in approximately 80 per cent of all cases of cardiac hypertrophy. Palpation is of value in reference especially to the presence or absence of precordial heaving, the sense of lifting of the hand applied with rather firm pressure over the precordium. Precordial heaving was present in 10 per cent in the normal series and in 91 per cent of all cases showing cardiac hypertrophy. Topographic percussion of the heart has been called the most difficult art of physical diagnosis. Used in the sense of accurate delineation of the entire left and right cardiac borders I believe that anyone can be convinced that this statement is true if the results from percussion are checked and compared with orthographic delineation. Fortunately, however, the easiest part of the cardiac border to percuss is the contour of the left ventricle forming the apex, since this is the closest margin to the chest wall, and it is this region which is most important in constituting the presence or absence of hypertrophy of the left ventricle. It is most useful in tending to confirm the location of the anatomical apex. In a total of 443 cases of normal and hypertrophied hearts conclusions from topographic percussion and x-ray methods agreed as to the presence or absence of hypertrophy in 83 per cent.

To return to the problem of differentiation of accidental systolic murmurs from that of organic mitral regurgitation, in my series of 345 cases showing cardiovascular auscultatory signs 199 or 58 per cent were classified as accidental murmurs, 11 or less than 3 per cent as organic mitral regurgitation. Of 113 cases of organic valvular heart disease, mitral regurgitation formed 10 per cent, as compared with mitral stenosis 42 per cent, mitral stenosis and regurgitation 21 per cent and aortic regurgitation 13 per cent. I present this data at the risk of burdening you for the purpose of emphasizing the fact that the one type of organic heart disease likely to be, and so frequently confused with accidental murmurs is one of the more rare types of chronic heart disease, while the accidental murmur, on the other hand, is exceedingly common. Of the hearts in this series which presented a systolic murmur as the sole auscultatory sign there were 211 cases of which 199 or 94 per cent were classified as accidental murmurs. Put in another way it may be stated that the chances of organic heart disease in an individual presenting a systolic murmur as the sole auscultatory sign, and in whom a relative mitral regurgitation can reasonably be excluded by age and absence of evidences of arterial and myocardial changes, is less than 1 to 10. While determination of the presence or absence of cardiac hypertrophy is the most important factor in the differentiation of accidental murmur and organic mitral regurgitation, other considerations are helpful. Considerable stress is usually placed on the character of the systolic murmur of the organic lesion. The typical murmur of organic mitral regurgitation replaces the first sound, is maximum at the apex, continues throughout systole and is transmitted well into the axilla and frequently heard posteriorly. It is usually constant in all body positions. In the eleven cases of organic mitral regurgitation in this series, the murmur was of this type in all. In the series of accidental murmurs it conformed to this type in only 5 per cent.

Apparent etiological factors as a basis for a pre-existing endocarditis are of significance. In this we may consider acute rheumatic fever, chorea and repeated severe tonsilitis as important. In the cases of accidental murmur, there was a history of acute rheumatic fever in 10 per cent, chorea in one-half per cent and repeated or severe tonsilitis in 19 per cent, figures practically identical with the series of normals. Of the eleven cases of mitral regurgitation nine gave a history of acute rheumatic fever and one chorea, a total of 91 per cent thus presenting a satisfactory etiological basis for the existence of the lesion.

Electrocardiographic observations were of less significance. Preponderance curves were present in 24 per cent of the accidental murmur series as compared with 29 per cent in the normals and 64 per cent in the cases of mitral regurgitation. No abnormalities of the R complex or T^1 or T^2 negativity was present in any case of the combined series.

MITRAL STENOSIS

The second organic cardiac lesion that I wish to consider in some detail is mitral stenosis. It is well known that this lesion may exist without a demonstrable murmur and this was true in 21 per cent of the 48 cases of this lesion and 35 per cent of the 20 cases of combined stenosis and regurgi-

tation. Thanks to the work of Vaquez and Bordet, we have x-ray methods for the diagnosis of mitral stenosis which are nearly if not entirely conclusive and it is possible to constitute a series of this lesion with a degree of accuracy hitherto unattainable. Differentiation of mitral stenosis from aortic regurgitation is important from the standpoint of the more favorable prognosis in the former and the frequent presence of syphilis as an etiological factor in aortic disease and the consequent indication for specific treatment. The absence of hypertrophy of the left ventricle in mitral stenosis and its invariable presence in aortic regurgitation is the most important differential point. Other somewhat less characteristic physical signs of mitral disease noted in the present series were (1) a poorly sustained impulse to palpation in 57 per cent, (2) accentuation and shortening of the apical first sound in 83 per cent, (3) accentuation of the apical second sound in 64 per cent and (4) of the pulmonic second sound in 70 per cent. The peripheral vascular signs always present in aortic regurgitation may be present, although nearly always less marked, in mitral disease. Capillary pulse was noted in 64 per cent and pistol shot sounds over the femoral artery in 14 per cent of the cases of mitral disease. Exaggerated P waves of the electrocardiogram, supposedly indicative of auricular hypertrophy, were noted in only 7 per cent of the mitral series. Preponderance curves were present to the extent of 35 per cent in the mitral series, about equally divided between right and left ventricle. The aortic series showed 42 per cent preponderance curves, all of the left ventricle.

In cardiac decompensation, the signs and symptoms of which are characteristic, there is no question of differentiation from the normal and we are less concerned with the anatomical nature of the lesion leading to the condition. We are concerned primarily with the degree of decompensation and its progress toward recovery. Work in laboratories of physiology and at the bedside during the last decade has given us a new and clearer conception of the decompensated heart. It was shown many years ago that the energy release of skeletal muscle during contraction was determined by the load upon the muscle. The initial load determines the length or tension of the elastic muscle fiber and this in turn the amount of work done by the muscle during its contraction. If the initial load is too great, the muscle is stretched beyond its physiological limits of response and the energy release becomes less. Bayliss and Starling and others have shown that cardiac muscle follows the same law, and that the initial load in this case is the pressure of blood at the onset of contraction or venous pressure. Failure of the heart muscle, like failure of skeletal muscle, comes where the load exceeds the capacity of physiological response of the myocardium. Cardiac decompensation may then be defined as that state in which the existing venous pressure is beyond the power of physiological response of the heart muscle. The importance of venous pressure determinations in controlling the treatment of decompensation, the rational basis for the use of venesection and the relation of venous pressure to renal function are outstanding advances from the practical standpoint that has developed from this new physiological conception.

For discussion see page 175.

The Application of Special X-Ray Methods to Cardiac Diagnosis*

BY FRED J. HODGES, M.D.

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For several years a group at the University of Wisconsin Medical School has been interested in the possibilities of x-ray studies in the field of cardiac diagnosis. This idea is by no means a new one, but because of certain difficulties and inaccuracy in ordinary methods when used in this field, it is only recently that any marked advances have been made. The French have pointed the way rather clearly and are, at the present time, the greatest proponents of diagnosis by this method.

In studying the heart one always begins with the anatomy, and in his clinical work uses such methods of physical diagnosis as will aid him in picturing to himself the probable appearance of the organ in the individual case. What then is more natural than the desire to better visualize

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this organ by means of the already popular roentgen ray? To be sure this has been done, widely, and opinions have been expressed as to approximate heart size from ordinary chest films and with considerably greater accuracy from the so-called seven foot plate, or teleoroentgenogram. However, such observations leave much to be desired, for in the first case the impressions gained are admittedly crude, and in the second little more than area and various diameters can be seen. Furthermore, the lower border of the heart is hidden in the seven foot plate by the dense subdiaphragmatic structures. Another difficulty encountered is the distortion which must occur when any object is outlined by ordinary x-ray methods.

Shadow images projected by parallel light are identical in area with the original object. Theoretically, x-rays can never be perfectly parallel and actually even the seven foot plate must be corrected for distortion. The method known as orthodiagraphy makes possible parallel projection, and this is accomplished by moving an x-ray tube, fitted with a marker for the central ray, to various positions so that the central or parallel ray will strike the border to be outlined. By marking such points on a fixed fluoroscopic screen and later connecting these points, the true size image of the object to be studied can be reproduced. This procedure can be easily accomplished and has for some time been employed by various cardiologists.

It was after working with this method that the group at Wisconsin began to feel the need for accurate knowledge concerning normal cardiac silhouette areas and their diameters. In 1918 Dr. C. R. Bardeen published a set of tables based upon measurements made with the teleoroentgenogram on cadavers in which the heart was later exposed and accurately measured, and upon a series of clinical subjects in which the x-ray method so tested was employed. In 1924 P. C. Hodges and Eyster used the orthodiagraphic method and the teleoroentgenogram in a new set of subjects and found that results were practically identical with both methods when carefully controlled. Upon this data, subjected to mathematical analysis, a new set of prediction tables were prepared which were shown to be somewhat more accurate than Bardeen's original tables. The Hodges-Eyster formula concerned only cardiac silhouette area and made possible the prediction in any individual of the most probable normal area for that subject.

The necessity for some method of estimation of the normal heart size in a given individual can be appreciated if one compares the entire problem to calorimetry in humans. An accurate basal metabolism reading involving the very careful measurement of respiratory gases is of little or no clinical value unless the investigator has a fairly accurate conception of the patient's normal caloric output. In other words, without some method for predicting normal metabolism figures such as the tables of Du Bois or Harris-Benedict, basal metabolic rate determination, no matter how carefully measured, is of little or no value to the clinician. Furthermore, unless the prediction method compares favorably in accuracy with the method for determining metabolic rate, accuracy in the latter procedure is wasted. The situation is parallel with regard to cardiac measurements, and normal estimates are essential if x-ray observations are to be of value.

The mathematical method employed by Harris and Benedict has been closely followed in the development of normal cardiac predictions. It is a method of statistical analysis by which various easily obtained body measurements are carefully correlated with standard cardiac measurements, and several such body measurements such as height and weight and the age of the patient are used as a team of individual variables, each one in its own way affecting heart size. By making use of the known effect of these variables on cardiac measurements one can predict the latter from the former.

PREDICTION TABLES

It is not the purpose of this communication to enter into the mathematical procedure necessary to develop the basic formula for that has been previously published, but rather to present in a practical manner the value of the end result. Prediction tables are a necessary part of one's equipment in forming an opinion as to the condition of a heart from its projected image. P. C. Hodges has shown very clearly the dependability of the orthodiagraphic method and with this method one can time after time obtain similar outlines from the same case. He has prepared normal tables for area and to these tables we have now added a prediction method for greatest transverse diameter, the only other measurement which we feel is necessary. This material has now been consolidated

into a readily usable form and by substituting the age, height and weight of the individual under observation in the tables one can learn the most probable normal measurements.

Data as yet unpublished which has been accumulated at Wisconsin indicates that true cardiac enlargement demonstrable by the x-ray is never found without pathological cause. Since the formula for transverse diameter takes into consideration cardiac position and diaphragm level, we are ready to assume that transverse diameter is never markedly increased without a pathological basis. In subsequent reports we hope to demonstrate these beliefs beyond question.

While the substitution of x-ray methods for all other means of cardiac diagnosis is farthest from our minds, we believe that x-ray has a definite place in this field, that from its use much information of value can be obtained, and that without it no cardiac examination can be said to be complete. The combined tables for area and transverse diameter prediction are to be published early in 1926 in The Archives of Internal Medicine by F. J. Hodges and J. A. E. Eyster. These tables are based on the following formulae in which an individual's body measurements can be directly substituted:

Prediction formula for most probable normal cardiac area (P. C. Hodges and J. A. E. Eyster, Am. Jour. Roent., Sept., 1924): Area in sq. cm. equals Age x .0204, + Ht. in cm. x .8668, + Wt. in Kg. x .337, minus 63.8049.

Prediction formula for most probable normal transverse diameter (F. J. Hodges and J. A. E. Eyster, in print, Archives of Internal Medicine): T-D in mm. equals Age x .1094, — Ht. in cm. x .1941, + Wt. in Kg. x .8179, plus 95.8625.

When these formulae are applied to cases being examined, figures are obtained which represent the most probable normal area and transverse cardiac diameter for the individual in question. By comparing the actual measurements obtained by orthodiascopic examination with the predicted normal a mathematical expression of increased or decreased size is obtained which has proved to be far more accurate than any other means of detecting enlargement. The employment of orthodiascopic roentgen technique in cardiac diagnosis is not urged as a substitute for the older methods but rather as an adjunct which appears to be valuable. Undoubtedly there are many phases of the roentgen diagnosis of cardiac disease yet to be developed but this much at least seems clear, that here as in every other branch of Roentgenology, standardized and specialized technique based upon anatomical considerations must be employed if this diagnostic aid is to prove dependable.

For discussion see page 175.

Remarks Upon the Athletic Heart*

BY LOUIS M. WARFIELD, M.D.
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The propaganda for periodical health examinations has placed a great responsibility upon the members of the medical profession. We are asked to tell a person whether he is healthy, and whether he can continue to lead the life he has been leading or whether there should be certain restrictions of his activities. Two very frequent questions are, "How is my heart?"; "Can I take exercise?" The answers to these questions are not always easy to give. Any knowledge which we may obtain is of importance in answering these questions. In this brief resumé of the effects of exercise upon the heart and the methods of recognition of the effects, it is hoped that some assistance will be given in helping to solve the problem.

The view that too strenuous exercise exerts a harmful effect upon the heart dates back to some time in the seventeenth century, and in the early part of the nineteenth century the opinion that overexercise caused heart disease was quite prevalent. Numerous experiments have been undertaken by various men to prove that exercise caused hypertrophy of the left ventricle. The hearts of tame animals were compared with those of wild animals of the same species. Dogs were exercised and controls from the same litter were kept at rest. Tame fowl were compared with wild fowl, and the conclusion was generally accepted that exercise actually did produce definite increase in size of the heart; the muscle hypertrophied in response to the demand for greater work.

Some observations made upon the hearts of

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athletes led some to believe that athletes had hypertrophied hearts and consequently their expectation of life was shorter than that of those who exercised moderately. One still hears echoes of this belief today.

Moritz, Groedel, Dietlen and others in Germany; Roger Lee and others in this country, made careful studies on this problem and concluded that the normal heart was not affected by any kind of exercise. Levine and his associates drew the same conclusions from their studies upon marathon runners. Deutsch and Kauf in their extensive studies of the hearts of young men and women, including champions in various athletic contests, have with certain reservations come to similar conclusions. It would seem then that so far as the question of the effect upon the *normal* heart is concerned there is considerable unanimity of opinion.

The size of the heart as well as the shape of the heart varies greatly in different individuals. Moritz in 1902 found that increase in the size of the heart shadow made with the orthodiagraph paralleled increase in height and in body weight, particularly when the body weight was due to general muscular development and large frame. Dietlen and others have confirmed this observation. The former has shown that of the two factors mentioned body weight is the more important.

There is further a relationship between breadth of thorax and size of heart. The ratio of the transverse diameter of the heart to the width of the thorax is given by Groedel as 1:1.92 and is remarkably constant in normal hearts. Practically, the heart is one-half the width of the thorax at its base.

Dietlen gives three general types of normal hearts: (1) The diagonally placed heart, the most common type in normal people; (2) the vertically placed heart, the most exaggerated form of which is the Dropped heart; (3) the transversely placed heart, found in thick-set persons, especially in advanced years.

The shape of the heart, however, depends upon a number of conditions all of which must be taken into consideration when forming an opinion upon the size of the heart. Assmann gives as the most important of the influencing factors, (1) the systole and diastole, (2) the frequency of the pulse, (3) the phase and depth of respiration, (4) the total blood volume, (5) the position of the body, i. e., standing, sitting, or lying down, (6) the position of the diaphragm. Other factors are sex, weight, height, shape of thorax, and age. Deutsch and Kauf in their large series had several groups of brothers and sisters. It was noted that the hearts of members of a family tended to have similar shapes and to react similarly to exercise.

It is not such a simple matter to define a normal heart, yet an experienced observer should have no great difficulty as a rule in recognizing one at once. One must keep in mind all the factors which influence the shape and size of the heart.

Many methods have been devised to measure the size of the heart in the living person, some of which are complicated and time consuming, and when all calculations are made the sources of error render the results of doubtful value. No method can measure the actual size of the left ventricle, the really important chamber in the heart.

The simplest methods are always the most used, and if they are shown to give accurate results which can be compared with results of later examinations by the same method, they are the best. For some time past the most widely used measurement of heart size is the transverse diameter (Tr). This is the sum of the distances from the extreme right border to the median line (Mr), and from the extreme left border to the median line (Ml). The right border is the right auricle, the left border is the left ventricle, not the apex, as that portion of the heart shadow is lost in the shadow of the left half of the diaphragm. Another measurement frequently, but less often, used is the diagonal from the right border at the junction of the auricle with the aorta, to the farthest point to the left on the left ventricle.

In a series of 1322 young men 20.9 years average age, 61 kg. (128 lbs.), 1.67 m. tall (5 ft. 5½ in.), and breadth of thorax of 24.2 cm., the Tr. found by Deutsch and Kauf was 11.5 cm. In women, a smaller group, it was 10.9 cm. Variations up to 13.5 cm. for men were found and were not considered abnormal when all of the factors influencing the size of the heart noted above were taken into consideration. Similar fluctuations to a less degree were noted in women. Dietlen gives slightly greater figures for the Tr. He measured 184 cases of 26.3 years average age and found the average Tr. to be 12.9 cm. The discrepancy between these two sets of measurements is undoubtedly due (1) to the difference in the average age

in the two groups, and (2) to the difference in numbers examined.

INCREASES IN SIZE

The heart increases in size with the growth of the individual. This seems to be due not only to the general growth of the body but particularly to the growth of the thorax in breadth. For example, children from 10 to 15 years and thorax breadth of 20.8-22.3 cm. have hearts with Tr. of 10.2 cm. Adults (men) from 30 to 35 years old and thorax breadth of 24.8-25.8 cm. have hearts averaging 11.9 cm.

Following violent and prolonged exercise the heart often definitely shows increase in size, the increase in Tr. often amounting to 3.5 cm. The most widely held opinion of this increase is that it is due to dilatation alone and not to dilatation with hypertrophy. Assmann and the Vienna school believe that the increase in size is due entirely to dilatation. They find no forcible apex impulse as must be present in cardiac hypertrophy, and most important, hypertrophy could not appear and disappear as rapidly as the observed changes in size. Changes in size are due to variations in tonus and are the result of influences affecting the vagus and accelerator nerves. An increase in vagus tone causes slowing and dilatation of the heart within physiological, but measurable limits. An increase in accelerator tone causes increase in heart rate but at the same time causes slight shrinkage of the heart. It has frequently been observed that the hearts of trained athletes actually become smaller after exercise. The explanation for this phenomenon is an increase in tone of the accelerator nerves. Various influences both psychic and physical which affect the sympathetic and parasympathetic systems have an influence upon the actual size of the heart. Worry over an approaching contest has been seen to vary the size of the heart (Deutsch and Kauf).

In a normal heart the dilatation is not permanent, what little there is is physiological. It is only when the heart muscle has been previously damaged by some infectious disease that it remains dilated after violent exercise. In older persons damage to the muscle by syphilis and myodegeneratio cordis play an important role.

According to Starling "the energy of contraction, upon which muscle substance is always measured, is a function of the length of the muscle fiber." This holds good for heart muscle as well as for other muscle, and expressed in terms of heart muscle can be stated as follows: "The greater the volume of the heart within physiological limits, the greater the energy with which it contracts." An enlarged heart therefore may perform more work than a heart of normal size but only within physiological limits of its increase in size. "When the optimal length of the muscle fibers is overstepped and the muscle must now work under unfavorable conditions, the heart must fail." Therefore marked grades of enlargement in the hearts of athletes cannot be considered harmless. (Deutsch and Kauf.)

Now that there is available a considerable mass of data upon the effects of exercise upon the heart, the next step is the application of the data to large groups of persons so that they may know, (1) whether they are able to indulge in violent exercise, and (2) when the exercise is harmful to them.

VIENNA HEART STATION

A rather unique clinic has been in operation for some years which I had recently the opportunity of studying; the Heart Station in Vienna. To this out-patient clinic come large numbers of young men and women for the purpose of having their hearts examined in order to satisfy themselves that they can, without harm, take any particular kind or all forms of exercise. The clinic, starting from a small beginning under the leadership of Profs. H. H. Meyer and R. Kaufmann has become so widely known that several of the athletic clubs in Vienna, especially the swimming clubs, will not allow a member to enter a contest without the sanction of the Heart Station.

The general plan of the clinic is simple. An accurate history is taken upon a form which is designed to include all of the common infectious diseases, to tell the kind of sport which the person has engaged in, the number of years of training, the competitions he has been in, and his records. Also information is obtained concerning any previous difficulty he may have had with his heart during training. He is then sent to the x-ray room where an orthodiagraphic record is made and then he is examined physically. The men are grouped in three categories, A, B, C. "A" signifies that they may engage in any athletics, even in championship contests; "B" signifies that they may take moderate exercise and training only; no competitive games; "C" signifies unfit for any games.

As each person is given his slip with the notation of his ability to engage in exercise, a time is set for him to return for reexamination. In the "A" group it is usually one year; in the "B" group the time may be as short as one month; in the "C" group the same. In most of the suspicious cases the findings are sent to the Secretary of the club of which the athlete is a member, so that he has information in regard to the athlete and can see that he is properly watched. If at any time the athletic director thinks that an athlete should be reexamined he is sent to the Station. The records are filed in the Station and comparisons can be made between former and subsequent examinations.

The most valuable feature of the examination both for the examiner and for the athlete is the orthodiagram. This is an objective record by which the physician can compare the size and shape of the heart with former orthodiagrams, and renders it easier for the physician to control the athlete's activities as the latter can see before him the evidence of the changes in size which may have occurred.

METHOD OF ORTHODIAGRAPHY

The method of orthodiagraphy is simple and rapid. The usual vertical fluoroscope is used, the tube moving vertically and horizontally with the diaphragm control, and the screen hung separately and moving independently of the tube. The person stands with his back to the upright and holds the screen firmly against his chest. By means of the diaphragm control the light is cut down so that only a small beam passes through the screen. This beam of light moving around the surface of the heart is always perpendicular to the plane of the shadow cast by the heart and thus gives a true outline of the heart. With a glass pencil the outlines of the sternal ends of the clavicles are traced, the right and left borders of the heart including the aortic knob, the limits of the thorax, and the outlines of the diaphragm. A piece of thin paper is then laid upon the glass of the screen and the tracing transferred to the paper. This is filed with the history and physical examination. Subsequent orthodiagrams can be placed one on top of the other for comparison. Occasionally a plate is made at a distance of 165 cm. The athlete is always in the standing position.

The orthodiagram is generally considered to be more accurate, when properly made, than the plate. The heart shadow made on a plate or film is always slightly larger than the tracing on paper. The chief reason for the greater accuracy of the tracing is the practical impossibility of getting the subject to take exactly the same deep inspiration on any two occasions As the height of the diaphragm has so great an influence upon the shape and size of the heart shadow, Assmann, for example, says that he has never been able to superimpose one teleoroentgenogram upon the other taken at any two times upon the same patient. Further considerations which have some weight are the difference in cost between the tracing and the plate, and the time necessary to complete each record. The records of the examinations and follow-up histories of over 3,000 young men and women who have been to the Heart Station have been collected and analyzed by Deutsch and Kauf.

VIENNA FINDINGS

They find that excessive exercise does in some cases produce enlargement of the heart but this measurable enlargement is never hypertrophy. Unless the heart is damaged by previous disease it always returns to its former size after rest. They found that men who had been in training for eleven years or longer had hearts which were slightly larger than other men of the same age who had only taken exercise for pleasure. The champion swimmers had hearts at the upper limit of normal. This may be accounted for by the fact that the chests of the swimmers were unusually broad and the muscular development was great. These hearts are normally large. Some which showed enlargement after training rapidly returned to their former size upon rest showing that the dilatation was not a very serious matter yet a matter that should be watched. Kaufman who had a large experience with soldiers believes that at all times the heart which shows no enlargement upon violent and prolonged exercise is the most efficient heart. The shape of the heart and even the size seem to have little effect on the functional capacity. That is to say that the vertical or pendent type of heart has been found in winners of various contests. This type of heart usually indicates a general constitutional inferiority but there are notable exceptions.

Many have held the view that rowing was the exercise most harmful to the heart. The investigations of Lewis did not reveal any noteworthy shortening of life or frequency of heart disease in

after life among a number of British oarsmen. Deutsch and Kauf found that the largest hearts occurred in the oarsmen, next in the bicycle racers, next in the skiers. The boxers, soccer football men and fencers showed no changes above the average normal heart size. In no case was the enlargement considered to be hypertrophy and in all cases of normal hearts the enlargement was at the upper limit of physiological dilatation. Only the hearts which remain permanently dilated after a period of rest are to be considered as damaged hearts. It seems to Deutsch and Kauf that there is greater harm in excessive exercise for adults over 30 years than for the developing adult.

An important point about which there has been much discussion is the effect upon the heart of the growing boy and girl by our school athletics. On this point the authors quoted worked especially and concluded that no harm is done to the hearts of the adolescent. They recommend close supervision of the growing youth as no one can say even in the absence of a history of infection that the heart may not at some previous time have been injured. Hearts which show marked states of permanent enlargement are those previously damaged by infectious diseases of which diphtheria, acute rheumatic fever, typhoid, and influenza are most important. Violent exercise is more apt to be followed by permanent dilatation in one of middle life than in the young. This is to be expected in view of the fact that this is the age when myodegeneratio cordis is probably beginning.

Those who have valvular lesions should not engage in strenuous exercise of any kind. Measurable enlargement from a previous orthodiagram is frequently unaccompanied by any symptom. On the other hand symptoms such as pounding heart, difficult breathing and pressure sensations in the left chest may be complained of without objective signs. These symptoms often pass away with further training, the body apparently becoming accommodated to the changed circulatory conditions. More important is the observation that enlargement may occur without any symptoms whatsoever. Under such circumstances frequent examination alone can determine whether the individual should continue training.

Increase of the pulmonic second tone at the base, even a split second tone so characteristic of mitral stenosis, is often found on auscultation. Systolic murmurs at the apex are often heard. These accidental sounds, as is well known, have no significance alone. Occasionally they are so loud that one may be in doubt as to their purely functional character.

With the fluoroscope one frequently sees the left border of the heart in an athlete approaching the configuration characteristic of the mitralized heart. In fact, I saw numbers of such hearts and heard loud pulmonic sounds at the bases and, rarely, split sounds. When to these signs of mitral disease is added a systolic murmur at the apex it becomes indeed a difficult matter to decide whether the possessor of such a heart should engage in violent exercise. Only constant familiarity with such types enables one to form a judgment, and if one is in doubt, permission to exercise with frequent reexamination is the only method of arriving at a correct opinion.

CONCLUSION

Heart disease is claiming a large percentage of the deaths of people all over the world. If this number cannot be materially reduced, can the age at death be pushed further on and can the lives of those with damaged hearts be made more bearable for a longer time? These are questions in which we are interested as physicians. The statistics from such a clinic as that in Vienna, carefully worked over as they are, seem to show that there are certain effects of violent and prolonged exercise which may not be without harm to the heart. The data show that careful supervision of the individual is the only method of finding the ones whose hearts will be injured by exercise.

From the standpoint of practicability and as a simple means to control the athlete's exercise the Vienna physicians look upon the simple orthodiagram as the most important part of the examination. Besides furnishing the physician with valuable information, it shows the subject in a graphic manner what has happened since the previous examination so that he is willing to obey the advice of the physician.

There is room for improvement in our methods of handling the school and college athlete. It should not be difficult in this day of preventive medicine to have all the young men and young women who desire to go in for training on the various teams examined at intervals, the examination to be physical and to include an orthodiagram. Only by doing this systematically will we be able to prevent the few who really should not engage in violent exercise from the serious consequences of damaged hearts.

DISCUSSION

President Cunningham: The discussion of papers will be opened by Dr. Patek, with special reference to lues as a cause of heart lesions. Dr. Patek. (Applause.)

Dr. A. J. Patek (Milwaukee): Gentlemen, you have heard a marvelous symposium covering a great many theoretic and also very practical fields of cardiologic work, and there certainly isn't very much in the way of discussion or criticism that one can offer, especially as much of this work has been presented today showing subjects with which some of us have had very little opportunity to become familiar.

I was very much interested in the analysis by Dr. Eyster, because he has in his work subordinated the finer mechanical means of estimating heart values to the clinical methods. When I refer to mechanical means I refer to electrocardiographs and orthodiagraphs and also the x rays. His result of only two per cent incorrect examinations as to size of heart made by physical, as compared with other methods, certainly shows that one of two things must obtain, either he and his coworkers have demonstrated very fine technic of very high order, or else the physical methods that they have employed in many instances are quite sufficient to properly analyze the size of heart aside from the other methods which they use largely perhaps for corroborative purposes.

I am very glad that Dr. Eyster emphasized the fact that so large a percentage of systolic murmurs of the middle area have no organic importance. His estimate of over ninety per cent corresponds very accurately with other estimates that have been published. Very much over ninety per cent of all systolic murmurs are of the functional and not organic type. A postmortem record published some years ago by Butler of New York, I think, showed that of a large group of cases (several hundred) only a relatively small per cent of those in whom mitral or systolic murmurs had been found showed organic changes, again corroborating the value of the physical examination.

Dr. Eyster reports that forty-four out of sixty-four post mortem records showed normal hearts in cases in which mitral murmurs systolic had been found. Therefore, we must conclude that functional murmurs are extremely common. I have been somewhat skeptical of the assumption that so many murmurs that are called functional are really functional. If that is the case, we may have to revise a little bit our conception of what constitutes normal heart tone. If so many tones can be learned or so many systolic tones in the mitral area can be called murmurs, can we conclude that the only normal systolic heart tone in the mitral area is pure tone without a murmur attached? I have been somewhat skeptical, as I said, that so-called systolic murmurs were only functional, because I have felt the conception of clear tones in the middle area systolic should be that conception that we have always assumed; that a systolic tone shall be clear, if it should measure the integrity or if it should indicate the integrity of the mitral valve. Where we have so many murmurous conditions in the mitral area, as is so often found, it is quite possible that we are dealing with something which we should not call functional, even though we may not call them organic from the standpoint of their being persistently organic. Functional murmurs may occur from changes in heart vessels presumably, perhaps from anatomical changes and distortion, perhaps from changes in viscosity of blood and perhaps for other reasons such as anemia, etc. Are those conditions normal, and dare we call those conditions, so-called functional murmurs, purely functional, and must we not speak of them in a measure, at any rate interpreting some organic change?

Dr. Eyster spoke of the hydrodynamics of the heart and enlargement of the heart in certain valvular lesions. Some years ago there was a shift, I think, in the conception of what really caused the hypertrophy of the heart, we will say, in valvular leak. The hydrodynamic condition has always been ascribed to changes in the chambers of the heart as a result of valvular condition. In a later school, in England particularly, there has arisen another view. This school insists that the hydrodynamic theory has been over-worked and that the infectious theory is the one that must be called into play when one is arguing that certain heart muscle changes and changes in the size of the chambers of the heart result following disease. The belief has been expressed by this school that the average heart muscle changes and changes in the size of the chambers of the heart result following disease. The belief has been expressed by this school that the average heart muscle is perfectly able to take care of normal conditions, and also that there is sufficient reserve in that heart muscle to compensate for certain degrees of abnormality in heart valve action, and that only if the heart muscle has been diseased by some infection that has attacked the heart muscle as it may have attacked the valve does this occur. It is thought, I believe, that very few cases of endocarditis occur with a myocarditis associated with it, and that only due to heart muscle infection does the heart become hypertrophied, rather than entirely relying upon the hydrodynamic theory of it.

The small element of errors of two per cent which Dr. Eyster mentions in his physical examinations certainly indicates that he at any rate has been able to use the finer methods of diagnosis for corroborative means, rather than for diagnostic means. This, of course, has its tremendous value in that it does not subordinate the examinations by physical methods to those that are perhaps equally exact but have a more mechanical character. The fact that Dr. Eyster has arrived at statistics by his examinations, which are as accurate as those I have quoted, would seem to suggest that the method of estimating the transverse diameter by the orthodiagram has not the tremendous value that—perhaps I underestimate its value—it is supposed to have by way of corroboration.

Dr. Hodges was kind enough to send me a copy of his paper, and in that paper there are certain conclusions which he did not have time to read. With his consent I shall read them. It was simply on those conclusions that I based my comment. Dr. Hodges in his conclusions says, "The tables presented introduce a means of prediction which is nineteen per cent efficient." If that prediction was only nineteen per cent efficient, perhaps that is a wrong criticism. At the same time where a physician examines and finds the prediction ninety-eight per cent perfect, it seems to me it would lack somewhat in value.

There is another question that I wish to raise. Does the transverse diameter of the heart as measured by an anti posterior examination measure the largest diameter of the heart? We know that the heart is suspended by the base. We know it is subject to possible tortion in its loosely hanging state, it is subject to the changes as Dr. Warfield noted. I think somewhere, I can't recall where, I have seen a statement to the effect that the actual anti-posterior diameter of the heart is sometime the more correct measurement of the actual volume of the heart than the transverse. Does, therefore, the orthodiagraphic method properly represent in the effort of prediction the normal heart for the individual.

There is nothing else I would say. I did want to comment on Dr. Warfield's presentation. I think that is a splendid method of estimating the functional capacity of hearts, and the value of it, of course, in athletes can not be underestimated. (Applause.)

UNDERESTIMATION OF GOOD RESULTS IN MENTAL DISEASES

The careers of 1,054 consecutive patients admitted to the department for mental and nervous diseases of the Pennsylvania Hospital were studied by Earl D. Bond, Philadelphia (Journal A. M. A., August 15, 1925), for a period of from five to ten years. The patients had the more severe mental diseases. Of 1,054 consecutive patients admitted, thirty were lost. Of the 1,024 patients that could be followed over five years, 274 recovered and stayed well; 159 improved greatly; 331 died, and 260 remained stationary or grew worse. Bond says that everything in psychiatry today points to the prospect of increasing the recovery percentage by getting at mental diseases early. If by getting at them late, consecutive cases may be expected to show full return to function in 25 per cent and amelioration in 15 per cent more, the general practitioner first, and the psychiatrist later, is justified in taking as hopeful an attitude as is taken for surgical problems.

Acute Glandular Fever: A Recent Epidemic, Report of Cases

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During the period of October, 1924, to May, 1925, this locality experienced a widespread epidemic of an acute infectious disease manifested by involvement of various groups of lymph glands with the occurrence of at least 1,100 cases. The greatest number of cases appeared during the months of January, February and March and had almost subsided the latter part of April. The epidemic was one in which many of the acute infections were present such as septic sore throat, septic tonsillitis in many cases and acute glandular fever. The complications encountered were otitis media, peritonsillar abscess, nephritis and in one instance, erysipelas.

The outbreak presented some new and interesting conditions not altogether familiar to the profession in this locality among which we may mention acute glandular fever. Because of the mildness of the symptoms the disease ran its course unrecognized in many instances. Some of the cases were mistaken for a septic tonsillitis, a septic sore throat, all loosely designated as "grip," or classified as some other acute infection. Hence, an accurate estimate of the number of cases must be less than the true figure.

During the past few years there have been reported small epidemics of glandular fever in various sections of the country. This disease, though not very common, is of sufficient frequency to be of importance especially from the practical standpoint. In this regard we may mention the symptoms, the etiology, the mode of transmission and the epidemiology.

We were able to collect data on 838 cases. This group includes all of the cases reported during the epidemic. From this number we have carefully selected 79 cases which we classified as glandular fever. It is upon this group that the following paper is based. We feel that a statement of the findings we have obtained would be of some interest at the present time.

CONTAGION

It is difficult to arrive at a conclusion on this point. Our series show approximately 64 families where from 2 to 7 members had the disease. Many isolated cases were reported from families having many children.

INCIDENCE

Age: In the cases reported the age of the youngest patient was two weeks and the age of the oldest 52 years. Sixty per cent of the cases occurred between the ages of 3 and 8 years; 14 per cent between 6 months and 3 years; 23 per cent between 8 and 25 years; and 2.5 per cent between 25 and 45 years.

Sex: The incidence of the disease from the standpoint of sex is of little interest. There was a percentage of 55.4 in the male and of 44.6 in the female.

DISTRIBUTION AND ETIOLOGY

The epidemic predominated in the section embracing "The Fox River Valley," extending from Fond du Lac to the southeast and from Green Bay to the northeast. The population being approximately 250,000.

The etiology of glandular fever is unknown. The observers who believe that the disease is due to some specific agent are in the majority. The early implication of the upper respiratory tract followed by a uniform involvement of the cervical lymph nodes has led to the belief that the virus gains entrance to the body usually through the tonsils or the post nasal space. Neither bacteriologic or serologic examinations have so far thrown any light on the cause of the disease. The cultivation of organisms from macerated glands has been of little etiologic value. In no instance could any of the cases be traced to milk as a carrier of the infection. There was no sudden appearance of a large number of cases to indicate a common source of infection rather than dissemination through contact.

Cultures were taken from the throat in all of the cases but did not yield any constant results. In 46 cases streptococcus and staphylococcus aureus were obtained; in 28 cases a staphylococcus aureus hemolyticus was present; in 3 cases a diplococcus; and in 2 cases a fusiform bacillus.

Among the serious features of the disease was the termination of the adenitis in suppuration.

This condition, although rare, occurred in eight of our cases (Fig. 1). All of the cases occurred in children under 5 years. Cultures from each abscess

and transferred to blood agar revealed a staphylococcus aureus hemolyticus.

SYMPTOMS

The onset of the symptoms was gradual. One of the early symptoms was a stiff neck. Headache, malaise and sore throat was complained of in a large number of cases. At the onset there was often an earache, a pharyngitis or a slight cough. Sweating was present in a few cases. Many complained of abdominal pain with nausea and vomiting. The vomiting was most prevalent in infants. The fauces were often reddened with soreness of the pharynx. In 10 cases the tonsils were slightly injected. In 18 cases the tonsils had been removed. Three of the cases developed a bilateral cervical abscess with the lymphoid tissue of the pharynx swollen and reddened. There was a rather rapid enlargement of the cervical glands followed in some cases with enlargement of the axillary, inguinal, the epitrochlear lymph glands and enlargement of the spleen. In 31 cases there was a unilateral involvement of the cervical lymph nodes; in 48 cases a bilateral enlargement.

The axillary glands were enlarged in 21 cases, the inguinal nodes in 18, the epitrochlear glands in 16, and the submental group in 12 cases. The cervical glands, although enlarged on either side, were usually most tender on one side. In many instances the axillary and inguinal glands were noticeably tender. The symptoms gradually subsided with decrease in size of the lymph nodes.

TEMPERATURE

During the period of the lymph gland enlargement the intermittent fever continued for a number of days and in most cases reached 101.6 F., and varied from 99 F. to 103 F., lasting from 3 days to 3 weeks.

BLOOD

Blood counts on fourteen patients during different periods of the disease revealed a moderate increase of lymphocytes. The highest percentage of lymphocytes in this series was 68 per cent, with a total white count of 21,500. The highest counts recorded ranged from 50 per cent to 68 per cent. The white count varied from 8,000 to 21,500. The average lymphocytosis of the 14 blood counts was 48 per cent. In no instance was there an anemia associated with the abnormal blood picture.

URINE

In a number of cases a trace of albumin was found.

Fig. 1. Infant 14 mos. Appearance of cervical glands with suppuration.

The cases reported conform generally to the type of infection encountered in the epidemic.

Case 1. Baby H., a premature infant of 2 weeks, born at St. Elizabeth Hospital, Appleton, February 28, 1925. Weight 4 pounds, developed an enlarged cervical lymph node with slight enlargement later of the axillary, left epitrochlear and inguinal glands. Suppuration of the right posterior cervical glands followed. The blood picture was that of a lymphocytosis. A fever of 102 F. to 103 F. was noted for a number of days and then gradually subsided. The anterior pillars and the pharynx were reddened. The cultures taken from the abscess and transferred to blood agar plates revealed a staphylococcus aureus hemolyticus. Cultures were negative to tubercle bacilli. Some six weeks later the glands although greatly reduced were still palpable.

Case 2. History: Mr. M., age 14, a student, was seen March 18, 1925. Four days before he developed a sore throat with a cough. That even-

ing he had a chill followed by a fever of 101.6 F. He complained of a headache and some soreness in his neck. Abdominal pain and nausea later developed. The fever continued.

Physical Examination: Well nourished, well developed white young male. The pharynx was congested and the pillars reddened. The lungs were clear. The heart was normal. The pulse 96. The liver and spleen were not palpable. The extremities were normal.

For some eight days the temperature remained between 101 F. and 102.6 F. The lungs were clear. On March 24, 1925, a palpable tender cervical gland was felt on the right side of the neck. The following day palpable glands were felt on the left side of the neck. The axillary and inguinal nodes were enlarged. The cervical nodes on the right side were especially tender and the size of a hickory nut. By April 3, 1925, the lymph nodes had diminished in size and were not palpable.

Laboratory examination on March 18, 1925: Blood showed a hemoglobin of 78 per cent; white count 15,300; red count, 3,950,000. Differential was 75 per cent lymphocytes. Three days later 77 per cent lymphocytes. On March 30, 1925, the white count was 7,300 and the lymphocytes 48 per cent.

TREATMENT

The treatment is symptomatic. The enlarged painful lymph nodes were best treated with local applications of hot or cold compresses. Some physicians advocated the local application of iodine to the tender painful glands. Sedatives and the coal tar products were used by some. It is important that the patient be well nourished. Calomel, in small doses, during the height of the trouble was advocated. Constipation is frequent and requires strict attention. No form of treatment, however, had any effect on the duration of the disease.

PROGNOSIS

Recovery was complete in all cases. There have been reported but few deaths. In these cases associated infections or complications resulted. The great majority of the patients experienced no later manifestations.

COMMENT

In such epidemics many features must be taken into consideration; the difficulty in finding the cause of the disease, the dissemination of the disease through contact rather than through a common source of infection, and the frequent association of the disease with similar acute infections occurring during the fall and winter months.

The disease has been mistaken for tuberculosis, typical fever, Hodgkin's disease, acute leukemia, and in a few instances syphilis. There is but little evidence to show that the condition is related in any way to any of these diseases.

The bacteriology of this disease is still much in dispute. Blaedorn and Houghton[1] state, that if the disease is due to some specific agent it would be reasonable to believe, because of the early involvement of the upper respiratory tract and the uniform enlargement of the cervical lymph nodes, that the virus gains entrance through the tonsils or upper respiratory tract. Cabot[2] suggests the streptococcus as the specific etiology. One author suggests that the mononucleosis might be regarded as a peculiar reaction of the individual toward some of the common infections caused by streptococci or staphylococcus aureus. In the eight cases with suppuration of the cervical glands it appears that the infection probably caused by the staphylococcus aureus hemolyticus bears some relationship to the blood picture of a mononucleosis. This was especially noted in the case reported of the premature infant. Sepsis, however, as a causative factor of the lymphocytosis, is still in dispute.

Acute glandular fever is considered by many as a distinct disease entity but certainly the facts do not altogether justify its classification. Further study of epidemics of this disease and other similar acute infections especially as regards the etiology, diagnosis and the laboratory findings will do much to clear factors not now known.

We wish to acknowledge our indebtedness to members of the profession in this locality for their cooperation in the report of their cases and to Sister M. Venentia, R.N., of St. Elizabeth Hospital, Appleton, who aided us in the laboratory study of the epidemic.

1. Blaedorn, W. A., and Houghton, J. E.: Arch. Int. Med., 1921, 27, 315.
2. Cabot, R. C.: Amer. Jour. Med. Soc., 1913, 145, 335.
3. Pfeiffer, Emil: Drusenfiber; J. f. Kinderkr., 29: 257, 1889.
4. Schaffer: Eine Epidemie von Febris Glandulaus; J. f. Kinderkr., 69:526, 1909.
5. Vipond, Alber: Arch. Pediat., 23:11, 1906.
6. West, J. Park: Arch. Pediat., 13:889, 1896.
7. Haas, Sidney V.: Am. J. Dis. Child., 3:241, 1912.
8. Dale, W. C.: China M. J., 1914, page 385.
9. Morse, P. E.: Glandular Fever; J. A. M. A., 77:1403, 1921.

Gun Shot Wounds of the Abdomen in Civil Life

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This series of twenty-six cases were operated upon by the writer at the St. Louis City Hospital, St. Louis, Missouri.

Only those cases in which there was an injury to the viscera are reported in this article. Stab wounds of the abdomen are not included. Some classify gun shot wounds and stab wounds together as penetrating wounds of the abdomen. Since the mortality is less in stab wounds than in gun shot wounds, in the writer's experience, this would tend to make it appear that the death rate in gun shot wounds is much lower than it really is if both are classified as one.

Dr. Woodhull Lee Condict[1] conducted a review of the records of the Gouveneur Hospital of New York from March 11, 1911, to August 31, 1922, a period of eleven and one-half years. He recorded twenty gun shot wounds of the abdomen with eleven recoveries, a mortality of 45 per cent. However, he did include in this series, cases that did not have an injury to the viscera. This of course lowered his mortality percentage.

Dr. Winslow[2] reported from the University Hospital at Baltimore twenty-three gun shot wounds of the abdomen. Thirteen died and ten recovered, a mortality of 56 per cent.

Dr. Fenner,[3] in the Annals of Surgery, 1902, reported one hundred and fifty-two cases from the Charity Hospital in New Orleans of which ninety-six were gun shot wounds with visceral injuries, of these seventy-one died, giving a mortality of 74 per cent.

The treatment of gun shot wounds, in general, witnessed a great change during the war, especially wounds of the chest and of the joints, and changed the civil practice in this field. However, no marked improvement was made during this period in gun shot wounds of the abdomen.

The diagnosis of penetration of the peritoneum by the bullet is usually easy. The following signs and symptoms will help in making a diagnosis. The position of wound of entrance and exit help to make a definite diagnosis in most cases. Absence of the exit wound does not mean that the bullet did not penetrate the abdomen. It is important to decide as definitely as possible whether or not the bullet entered the abdominal cavity, and if so, what viscera were injured. The fluoroscope is of great aid in making a diagnosis. However, it is better to explore a negative abdomen occasionally than to fail to operate one with perforations. As stated before no marked improvement was made during the war on gun shot wounds of the abdomen. Shock should be treated first. Since the patient often goes into shock during the operation, one should have good exposure, work fast, and go over the bowel and other viscera in a systematic manner. When vessels only are injured and the bleeding has been controlled, the clots should be removed and the abdomen closed without drainage. If the injury is to the small bowel with a small amount of soiling, and the patient is operated upon early, the abdomen should be closed without drainage. The abdomen should be drained in all cases where there is a large amount of soiling, or a perforation of the large bowel, stomach, upper jejunum, or bladder. All cases operated after twenty-four hours should be drained.

TYPICAL CASES

The following are the three most interesting cases of the series.

Case 1. Mr. F. S., white, age 14 years, was brought to the hospital, having been shot in the buttock by a boy companion about two hours before, while stooping over to pick something off the ground. The bullet entered the left gluteal region midway on a line drawn from the anterior superior spine to the tuberosity of the ischium.

Physical examination was negative except for abdominal tenderness in the left lower quadrant, with slight rigidity. By sudden release of pressure, pain was elicited. Examination of the chest showed no enlargement of the heart dullness and no change in the heart sounds. The blood pressure was 120 systolic and 60 diastolic. White blood cells numbered 7,850. Fluoroscopic examination showed numerous small particles of lead both lateral and medial to the ilium. The bullet was found in the midline at the level of the tenth thoracic vertebra. It moved synchronously with the heart beat.

Laparotomy was performed at once. A left rectus incision five inches long was made, and bloody fluid was found in the peritoneal cavity.

The following perforations of the viscera were discovered: One in the transverse colon, one in the sigmoid, one in the descending colon, one in the posterior wall of the stomach, and seven in the small intestine. None of these were so large as to prevent simple purse-string closure with catgut. A rubber drain was inserted in the pelvis, and one in the region of the sigmoid. The abdomen was closed in layers with catgut and mass sutures of silkworm-gut.

After a stormy post-operative course, requiring a blood transfusion, the patient gradually improved. Three days after operation, there developed an extensive wound infection with necrosis of the deep fascia, which slowly sloughed off, exposing the small intestines. The wound was dressed with petrolatum gauze, and granulated promptly. Reverdin grafts, which took very well, were placed on the wound. The patient was discharged in three months with instructions to return for repair of an extensive hernia then present.

The patient was seen nine months later and found to be in an excellent condition and was working as a messenger boy. He refused to return for repair of the hernia. Examination of the heart area was entirely negative. Fluoroscopic examination at this time revealed a bullet moving synchronously with the heart. It was located above the diaphragm and was evidently in the heart muscle.

Case 2. Mr. E. D., a white male, age 19 years, was shot in the back. The bullet entered in the left lumbar region and left the body in the mid-clavicular line about the ninth rib. There was marked distention of the entire abdomen with tenderness. The patient vomited soon after entrance to the hospital. The systolic blood pressure was 120, diastolic 80, pulse rate 116. No blood was found in the urine.

A left rectus incision eight inches long was made. A small amount of bloody fluid was found in the peritoneal cavity. One perforation was found in the jejunum which was closed by suture. A perforation was also found in the parietal wall near the spleen which was also closed. One rubber drain was inserted. The abdomen was closed in layers and reinforced with three silkworm-gut sutures. Five days after the operation the patient tried to get out of bed and broke the wound open. Symptoms of obstruction appeared soon after. The wound was closed under local anesthesia with interrupted through and through silkworm-gut sutures and six inches of bowel was reduced. A few days after the secondary closure a jejunal fistula developed which caused an impaired nutrition. The fistula was temporarily closed by the use of a rubber pad and collodion which improved his general condition. The fistula was later closed by an operation in another hospital. The patient was seen by the writer two months later and was getting along nicely.

Case 3. Mr. H. P., age 26, and white, was shot by a gangster. The bullet entered the left side of the chest at the junction of the ninth intercostal space with the anterior axillary line. The patient vomited blood soon after entrance to the hospital.

An incision six inches long was made beginning at the xyphoid process. The abdomen was opened and a small amount of free blood was found. A perforation was found on the anterior and one on the posterior surface of the stomach which were closed. The bullet also perforated the body of the pancreas. One rubber drain was inserted into the lesser peritoneal cavity down to the head of the pancreas. The abdomen was closed in layers and reinforced with silkworm-gut.

The patient got along fairly well and had been allowed up in a chair. However, the discharge did not subside entirely and became thin and watery in character, resembling pancreatic juice. Two days before the patient died he complained of severe abdominal pain and stated he felt something burst inside. A large amount of reddish yellow discharge escaped from the wound. The following day he vomited bright red blood and died soon after. This man lived six weeks.

Post-mortem examination revealed that the posterior wall of the stomach was adherent to the pancreas and filled with old clotted blood. There was a necrosis of tissue and a ruptured blood vessel at the site where the perforation on the posterior surface of the stomach had been repaired. A long walled-off abscess cavity, filled with blood and pus, extended from the upper abdomen on the left side almost to the pelvis on the same side. The bullet was located in the second lumbar vertebra.

Of the twenty-six cases operated there were eleven colored and fifteen white; four females and twenty-two males. It was necessary to resect the bowel in but three patients. Two of these recovered.

Complications that developed in those cases that recovered were as follows: The wound opened in two patients and a loop of bowel became strangulated. The bowels were reduced under local anesthesia and wounds closed. One gastric fistula and two faecal fistulas also developed and a severe wound infection reported in case 1.

Post-mortem examinations were done on all of those patients that died. Perforations were missed in two of these. However, a hurried examination of the viscera was made in both of these since they went into shock on the table. Death was caused by shock in three cases and peritonitis in eleven cases.

CONCLUSIONS

Of the twenty-six cases operated, twelve recovered and fourteen died, a mortality of 53 per cent.

The prognosis is fairly good in those cases where only the stomach is involved.

It was found that the mortality was very high in those cases with a large hemorrhage.

The transfusion of blood helps to lower the mortality.

BIBLIOGRAPHY

1. Condict, W. L.: Perforated Gun Shot and Stab Wounds of the Abdomen Treated at the Gouveneur Hospital of New York; Ann. of Surg., 1924, Vol. 80, pp. 51-55.

2. Winslow, N.: Penetrating Abdominal Wounds; Surg. Gynec. and Obst., 1922, Vol. 34, pp. 617-629.

3. Fenner: Report of Gun Shot Wounds from Charity Hospital of New Orleans; Annals of Surgery, 1902, Vol. 35, pp. 15-26.

4. McGuire, C. A.: Gun Shot Wounds of the Abdomen; Southwest J. M. S., El Reno, Okla., 1920, Vol. 28, pp. 69-71.

5. Jopson: Perforating Gun Shot Wounds of the Abdomen; Ann. of Surg., 1920, Vol. 71, pp. 103-106.

6. Pearson, A. C.: Advantage of Immediate Operation in Penetrating Wounds of the Abdomen; Brit. J. Surg.. 1919-1920, Vol. 7, pp. 539-542.

7. Farmer, C.: Gun Shot Wounds of the Abdomen; Kentucky M. J., 1921, Vol. 19, pp. 591-596.

8. Bierling, S.: Abdominal Thoracic Gun Shot Wounds; Brit. J. Surg., 1919-1920, Vol. 7, p. 416.

9. Taylor, G.: Double Resection of the Bowel; Four Successful Cases of Gun Shot Injuries; Lancet, 1919, Vol. 1, p. 461.

Convulsions in Infancy and Childhood*

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A convulsion is a series of involuntary contractions of a group or several groups of muscles usually associated with a loss of consciousness (cerebral function). (A tonic spasm can hardly be called a convulsion). According to Luciani, general convulsions originate only in the cortex and Monackow states that a reaction does not occur when the cortex is eliminated. Monackow describes the course of convulsion as follows: A stimulation or impulse in the motor area of the cortex usually in an extremity zone is transmitted through the pyramidal tract and the other cortico fugal fibers to the hind brain, thence to the tegmentum, to the floor of the pons and then to the medulla oblongata. From there the impulse is transmitted to the anterior horn cells of the spinal cord and thence to the muscles. The completion of a convulsion requires the participation of the formatio reticularis in the medulla, the cells in the substantia nigra, various portions of the cerebellum and the cells of the pyramidal tracts.

The relative frequency of convulsions in infancy and early childhood has been given considerable attention. Stumpf states that seizures may occur in the fetus in utero. Convulsions are seen most commonly in new born infants and in babes from 8 months to 3 years of age. The low incidence of convulsions between the ages of one week to eight months is explained by Rachford as due to an abeyance or suppression of the cortical motor system. The function of the nervous system is coordination or integration, namely, a maintenance of the essential connection between the receptors of stimuli and the effectors or the reactions to stimulation. Much study has been made of the development of the nervous system in the developing individual for an explanation of abnormal reactions. A convulsion might again be defined as an abnormal or incoordinate reaction to an abnormal stimulus or to a stimulus received under abnormal conditions. The convulsions or incoordinate muscular reactions which we see might be likened to the disturbance visible after an explosion has taken place.

*Read before the Milwaukee Academy of Medicine, January 26th, 1926.

The central nervous system of the new born infant has practically developed its adult form. The brain has reached one-third of its destined weight, a proportion to the total body weight as 1 : 8. While the body mass increases 20 times to reach maturity, the brain increases 3.7 times making the final proportion 1 : 40. Until recently it had been held that cell division in the brain was complete shortly before birth. However, evidence has been adduced to show that new cells are formed after birth. The relatively small increase in size and in number of cells are probably of no great moment in the development of the nervous system. The greatest change is qualitative establishing functional relations between existing cells. As the cortex grows in size the relative space between cells is increased and the dendrites of the neurons become much more elaborate.

The greatest visible changes in the development of the nervous system are the myelination of nerve fibers. At birth the cerebral cortex has very little function. Impulses are transmitted from the receptors to the cortical centers but do not radiate further. It is only as myelination and development proceed and the cortex is connected with the secondary centers that association tracts develop and coordination of function follows. The spinal cord of the newborn infant is completely developed in form except for a small remnant. The conducting bundles are all myelinated except for the direct and crossed pyramidal tracts and a few fibers in the ventral region. It will be remembered that the pyramidal tract is essential for coordination and for the completion of a convulsion. The long association tracts are nearly all medullated at 9 months while the projection fibers and the radiation fibers in the cortex are not completely covered until the end of childhood. The peripheral nerves of the infant are not well medullated until the end of the first year. The high incidence of convulsions in early childhood can be explained by the diseases peculiar to this period. The influence of the undeveloped nervous system may be a factor.

CEREBRAL HEMORRHAGE

The most common cause of convulsions in the new born infant is probably cerebral hemorrhage or injury due directly to the forces of labor. The incidence of intracranial hemorrhage and injury to the brain even in easy labors is much higher than has been supposed. Recent investigators, particularly Sharp of New York, have found blood in the spinal fluid in a high percentage of new born infants with a normal birth history. If the hemorrhage is in the brain substance there may be no blood in the spinal fluid. The convulsions may occur immediately, after several days, or even after several months. Some cases of cerebral birth hemorrhage show few symptoms and hence remain unrecognized until the resultant palsy or convulsions become manifest. The convulsions usually occur frequently at first and then gradually diminish in number and severity and often cease. Second in causal frequency but not common in newborn infants may be considered seizures due to bacterial infection. These may occur in bacteremias due to streptococcus staphylococcus, B. coli, pneumococcus, tetanus, etc., or they may appear after secondary invasion of the meninges, producing meningitis, encephalitis, thrombosis, etc. The remaining causes of convulsions in the newborn are eclampsia, occurring in infants delivered of eclamptic mothers; toxic as due to drugs—alcohol, atropin, lead, etc.; and the organic due to congenital malformations of the brain and skull such as porencephaly and microcephaly. Fractures of the skull are rare. Syphilis and hydro-cephalus seldom cause convulsions in the newborn. Convulsions in thymic deaths are usually terminal.

After the first few weeks of life convulsions are not again common until the sixth or eighth month when spasmophilia becomes prevalent as the most common cause of all convulsions in childhood. Spasmophilia may be considered a metabolic disorder closely associated with rickets, characterized by a hyper-irritability of the nervous system. The disease is manifested by laryngospasm, tonic spasms, and convulsions. The severe convulsions are preceded by aurae or psychic changes as irritability, restlessness, apprehension, and closely simulate epileptic seizures. The irritability is followed by a complete loss of consciousness associated with rhythmic convulsions of the entire body. The face is greatly distorted by intense twitchings, the eyes roll continuously, the tongue and lips may be bitten. The hands and feet are often held in carpopedal spasm. There is a loss of sphincter control. At the end of the exhaustive seizure there is complete relaxation and deep sleep.

The convulsion may be repeated so often that a state similar to status epilepticus supervenes.

This spasmophilic status may explain many reported recoveries of so-called status epilepticus in children. Spasmophilic diathesis or tetany is probably the basis of the convulsions in childhood which occur at the onset of acute infections, scarlatina, rubeola, varicella, etc., and the so-called reflex spasms associated with gastro-intestinal disturbances, the much-abused worms, and phimosis. A delay in the normal process of dentition is usually associated with rickets and tetany. Convulsions or spasms occurring at this time are the sequence of spasmophilia and have no further relation to dentition. Incision of the gums is as irrational a procedure in these conditions as is circumcision and operations on the clitoris.

The spasmophilic diathesis may persist until puberty. The diagnosis is easily made on the physical findings with a Chvostek, Trousseau and Erb's signs. True spasmophilics are rarely epileptic, but about two-thirds of these children become adult neuropaths and then transmit the hereditary taint to posterity.

ENCEPHALITIS

The other causes of convulsions in infants as in older children may be due to delayed influence of congenital malformations, cerebral hemorrhage, hydrocephalus, brain tumor, syphilis of the brain, meningitis, uremia, and terminal convulsions in marantic infants. One of the most important causes of convulsions in childhood from the standpoint of differential diagnosis is encephalitis. Whether this disease occurs in the form of epidemic encephalitis or as a complication of influenza, pertussis, typhoid fever, or any of the acute infectious diseases the sequelae and prognosis are the same. Usually there is a history of a fever, stupor, and a convulsion. However, the convulsion may not appear until later and the primary disease may be slight or ignored. The encephalitis residues embrace a study in themselves. Suffice it to say here that they may simulate epilepsy in every detail. The convulsions are more often diurnal or occur early in the morning and the mental deterioration is much more rapid. There is often a complete character change in the patient. The history is of the greatest value in the diagnosis. Among the rare occasions usually classified with the convulsions of childhood are pseudotetanus, spasmus nutans and pyknolepsy. Pseudotetanus may be found in children up to 6 years of age. This rarity closely simulates tetanus except that there is no wound and the rigidity ascends from the legs; there is more or less relaxation during sleep. The spasmus nutans and rotorus occur from four months to three years. These peculiar stereotyped noddings or twistings are exaggerated when the head is held and are accompanied by nystagmus. The spasms disappear during sleep. Pyknolepsy as recently described by Stahrgardter closely resembles petit mal beginning at 7 to 8 years of age and ending spontaneously at puberty. Pyknolepsy does not progress as does petit mal; it is influenced by emotional disturbances but the attacks are not induced by Rosetts hyperpnea. Drugs have no influence on the attacks.

About 20 per cent of the convulsions of infancy and childhood are due to epilepsy. Almost all of the cases have their onset before puberty and in the majority the first convulsion occurs before ten years of age. Spasmophilia has no relation to epilepsy. A family history of hereditary taint such as epilepsy, migraine, nervousness, etc., is obtained in only half of the cases.

The unexplained sporadic convulsions of infancy occurring years before the definite onset of epilepsy may have a definite relation to the disease. A previous history of infantile convulsions is obtained in only 5 per cent of the patients with epilepsy. Very often these patients have a free interval of ten years when grand or petit mal makes its appearance with the usual progression.

Essential or idiopathic epilepsy is a chronic disease of the nervous system characterized by periodically recurring convulsions, lapses or abnormal mental states occurring in individuals with a constitutional inferiority or personality defect but with no demonstrable pathologic lesion. The etiology of the disease is not known, but the immediate cause of the attack is probably a disorder of the metabolism possibly associated with a change in the acid-base equilibrium toward the alkaline side. Symptomatic epilepsy following trauma or associated with brain tumor demands special consideration. The epileptic seizure is too well known to require detail description here. Aurae are recognized in about 50 per cent of the cases. The first attack may be a severe grand mal or a transient petit mal attack. About 50 per cent of the epileptics begin with petit mal which gradually develops into grand mal seizures. The disease un-

treated is usually progressive and produces mental deterioration.

CONCLUSION

In conclusion, the convulsions of infancy and childhood might be classified as due to organic, functional, and acute infectious diseases. A convulsion in a newborn infant is probably organic and cerebral hemorrhage, birth injury, and congenital malformations of the brain should be considered in the respective order. A spinal puncture should be done. Convulsions occurring between the first few days of life and eight months are usually due to congenital malformations of the brain or skull and acute infections. Between eight months and three years most of the convulsions are functional due to spasmophilia. Acute infections, including encephalitis are next in frequency and are usually accompanied with an obvious history. Epilepsy, brain tumor and congenital malformations must always be kept in mind more especially in older children from three to fifteen years of age. Recurring convulsions, absence of fever and general symptoms are suggestive.

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

Privately-Owned Wells as Sources of Water Supply in a City

BY W. W. BAUER, M.D., AND J. J. McCARTHY, B.S.,
Commissioner of Health Bacteriologist
Racine Health Department

One of the important modern health problems confronting a city is to secure and maintain a safe and pleasant water supply which shall also have such chemical characteristics as will make it suitable for household uses other than drinking and for industry. This problem is attacked in a number of ways, depending upon the location of the city. The principal sources of water are natural surface waters and underground waters. The latter come from artesian wells, from which many cities derive their supply. Where a good artesian supply is available, it is a highly desirable source of water since deep-driven wells properly protected near and at the surface furnish pure water without the need of additional treatment. The disadvantage of artesian water is that it is frequently very hard, which makes treatment necessary when it is to be used for certain industrial purposes. Surface waters are subject to danger of pollution and usually require treatment for purification before they can be deemed safe, unless they are secured from distant uninhabited areas.

New York and Los Angeles are conspicuous examples of cities securing their water from distant, carefully guarded mountain sources after the manner of the ancient Romans. Toledo, St. Louis and Philadelphia are typical of cities using river water, getting their supplies from the Maumee, Mississippi-Missouri and Delaware-Schuylkill rivers respectively. Cleveland, Detroit and Milwaukee use the waters of the Great Lakes, and so also do the smaller Wisconsin cities situated upon Lake Michigan. Racine's water supply will be the subject of this discussion, since the problems of this city may be said to be typical of other lake cities.

In common with many municipalities similarly situated, Racine takes its supply of water from Lake Michigan and empties its sewage into the same body of water. The sewage from a city of approximately 70,000 people, like Racine, added to that of its neighbors who do not purify their sewage, plus the pollution from passing vessels upon the lakes, obviously makes Lake Michigan a source of water which is none too clean or safe. In addition to the use of lake water, the citizens of Racine are supplied by 218 privately owned wells and three commercialized springs, as well as five public springs. In spite of the fact that Racine has had a low typhoid rate, as shown in the accompanying Table I, both the Water Commission and the Health Department of this city have regarded its water supply as potentially unsafe and have therefore taken steps to improve the condition.

Racine's water situation at the beginning of 1925 was substantially as follows: The city sewers empty partly into the Root river and partly into Lake Michigan. City water was secured from

TABLE I

TYPHOID FEVER DEATHS

Year	Typhoid Deaths per 100,000 population
1916	7.7
1917	10.7
1918	5.2
1919	3.6
1920	5.1
1921	10.0
1922	0.0
1923	0.0
1924	0.0
1925	0.6

the lake through an intake three miles northeast of the mouth of Root river. The water was delivered to the homes with no treatment for purification except the addition of liquid chlorine by the continuous method. The growth of the city made it manifest to the Water Commission that additional water would have to be supplied for household and industrial use and for fire protection. It was also realized that steps would have to be taken to purify the water supply as well as to increase its volume. The condition of the city water in 1924 and a comparison of the same with 1925 is set forth in Table II.

TABLE II

DAILY EXAMINATIONS OF CITY WATER

	Specimens Examined		Safe		Unsafe	
	1925	1924	1925	1924	1925	1924
January	30	*	16	*	14	*
February	28	13	17	10	11	3
March	30	31	11	27	19	4
April	30	28	14	12	16	16
May	31	29	12	12	19	17
June	30	27	29	16	1	11
July	29	31	5	21	24	10
August	31	25	28	18	3	7
September	30	29	29	24	1	5
October	31	31	29	23	2	8
November	30	30	22	18	8	12
December	31	31	23	20	8	10
Total	361	295*	235	191*	126	104*
Per cent safe	65	64				

*No examinations until Feb. 16, 1924.

A glance at Table II will show that more than one-third of all water samples analyzed failed to comply with the standards for safety as laid down by the Treasury Department of the United States through the Public Health Service. In fact, a more liberal standard than that of the Treasury Department was adopted arbitrarily by the Racine Health Department in judging the samples. A sample was classified as unsafe if it only showed fermentation in two 1 c.c. gas tubes, or more than 10 per cent in one gas tube, or if the bacterial count exceeded 2,500 per c.c. Using this liberal standard, we were nevertheless forced to regard more than one-third of our samples as unsafe. As was to be expected, the greatest percentage of unsafe specimens were found in the spring and fall, and during periods of exceptional rainfall. This is explained by the fact that during such times there is a heavy washing of pollution from city streets and from the countryside into the lake and the streams tributary to it and thus a heavy pollution of the lake itself. Even the addition of chlorine could not totally eradicate the infection of the water with bacterial growth of intestinal origin as shown by the high percentage of fermentation in our daily samples.

The plans of the Water Commission, as finally worked out, recognized the importance of purification and were in substance to provide ample storage for ordinary use and a reserve for fire protection, and also to provide a settling basin for clarification prior to filtration. The building of a new intake was thus postponed in favor of purification. The first unit of the filter plant has at this writing been completed and is in service, this being a two million gallon sedimentation basin. It was placed in service in the month of July, 1925, and its effect upon the water can be seen by comparing the percentages of unsafe samples each month thereafter with the percentages of the corresponding months in 1924. While it effected a marked improvement, it is manifest that it alone cannot be considered a satisfactory means of purification. Further progress is in sight with the approval by the Water Commission and the State Sanitary Engineer of plans for a filter plant and clear well to be used in conjunction with the sedimentation basin. The contract for this additional construction will probably have been let before this reaches print.

INDIVIDUAL SOURCES

With a safe city water supply in immediate prospect, the Health Department undertook to ascertain what, if any, sources of water supply existed aside from the municipal water system. Three springs, each belonging to individuals or companies which bottle the water for sale were known to the Health Department. These are springs de-

livering good drinking water which is handled in a satisfactory manner. A survey was instituted to determine the number, location and general character of privately owned wells in the city, and the report of this survey is the principal purpose of this paper, the preceding discussion of municipal water supply being merely for the purpose of furnishing a background.

The survey of wells revealed the presence of 218 privately owned wells, most of them in the older sections of the city on the northeast side and in the newer and therefore less developed sections to the northwest and in the geographical center of the city, which has remained undeveloped because of its undesirable location in a deep valley near the Root river. Most of these wells are in sections where municipal water mains have been extended in comparatively recent years or have not been extended at all. The northeast side of the city furnishes an exception to the preceding statement, the wells here being owned by old settlers in the city who have clung to their individual supplies despite the fact that city water has been available to them for many years. More recently, the polluted condition of the city water has furnished excellent reason why these private wells should not be given up. The private wells owned by industrial companies are fairly well scattered over the city.

In making this survey of wells, a form was used containing the following information:

WELLS

Date of survey?
Location of well?
Owner?
Owner's address?
Well or spring?
Dug or drilled?
How deep?
When constructed?
Pipe casing and how deep?
Brick or other lining and how deep?
How much used? How much used for human drinking purposes?
Pump or flow?
Does pump require priming?
Is well on a hillside?
If so, how far from top?
Is well in a hollow?
Can surface water flow into well?
Can waste water from pump flow into well?
How is top covered?
How near is well to outside toilets? or stables?

Space was provided in addition for recording water examinations and for recommendations. The survey was made and water samples were secured by the Health Department Sanitary Inspector. The water was examined in the Health Department Laboratory.

The age of these wells is of interest. Only 45, or approximately 21 per cent, have been constructed in the last ten years while some of the rest are so old that it was impossible to obtain information from the present owner as to when they were sunk. It is interesting to note that practically without reference to age the percentage of unsafe wells is about two and one-half to one, there being 63 of the total number safe and 155 unsafe. This classification is based upon but one examination and it is unquestionably likely that additional examinations would reveal times when the wells, now classified as safe, are not to be so regarded. The details as to the age of these wells are shown in Table III.

TABLE III

Age of well in years	Safe Water	Unsafe Water	Total
1 to 5	5	11	16
6 to 10	9	20	29
11 to 20	11	26	37
21 to 30	8	25	33
31 to 40	7	12	19
41 to 50	1	25	26
Over 50	5	6	11
Not known	17	30	47

About twice as many of these wells are dug as compared with those which are drilled and in twenty-eight instances the type of well was not known by the owner. Most of this latter group consisted of old wells which were undoubtedly of the dug variety. Table IV shows the details.

TABLE IV

	Safe Water	Unsafe Water	Total
Drilled or driven	29	37	66
Dug	28	96	124
Not known	6	22	28

In considering the depth of these wells it became evident at once that most of them were of the shallow variety, 175 out of 218 being less than 100 feet deep and 68 of this number less than 25 feet. The matter of depth will be considered in connection with another table below.

The character of these wells as to casing showed 69 with a pipe casing, these obviously being drilled wells. The largest number, 117, were lined with brick. Twenty were lined with tile, three with cement, and in nine cases the character of the lining could not be determined.

Various kinds of covers were found on these wells, 143 of them being covered with planks, 55 with cement, and four with tiles, two with no covers and 14 having the pump directly connected to the pipe casing.

Most of the wells were located upon level ground, which might have been expected in a city, but 15 were in hollows. Fifty-one were within 100 feet of outside toilets and ten within 20 feet of stables.

TABLE V

Depth	Safe Water	Unsafe Water
Less than 25 ft.	1	2
25 to 100 ft.	4	10
101 to 200 ft.	6	6
201 to 400 ft.	2	..
Over 400 ft.	2	..
Not known	4	1

It will be seen from Table V that there were but 38 drilled wells with tight covers and pipe casings. This particular grouping is chosen for analysis because a well with these characteristics may be expected to be a safe well if it taps a source of safe water. The pipe casing and the tight cover afford adequate protection against surface pollution. Reference to the tabulation will show that of wells less than 200 feet in depth there were eighteen unsafe and but eleven safe, practically 60 per cent being unsafe. All of the wells over 200 feet were safe wells.

CONCLUSIONS

1. In the presence of an unsafe municipal water supply, many of the inhabitants of Racine turned to private wells as a source of water.

2. Of the 218 private wells, 71 per cent were found unsafe as a result of one examination, while repeated examinations would undoubtedly place some of the remaining 29 per cent in the unsafe classification.

3. In the presence of an unsafe municipal water supply, it is not expedient to require the destruction of private wells.

4. In the city of Racine at least, and probably in any other densely inhabited area the construction of wells by digging or the drilling of shallow wells or the failure to provide adequate protection against backflow and seepage must be regarded as dangerous practices.

5. With progress toward safe municipal water, the well situation becomes a public health problem, and it is submitted that with the completion of municipal water purification works all wells which are found to be unsafe should forthwith be condemned by the Board of Health, since their presence constitutes a potential menace with respect to water-borne diseases.

THE JOURNAL CLINIC

Differential Diagnosis of Case Reported in March

BY L. M. WARFIELD, M.D.
Milwaukee

According to Aschoff and others the arteries of all people undergo certain changes from birth to old age which are quite similar in kind to changes which take place in all organs. The fundamental tissue change is a gradual wearing out of the specific cells of organs and replacement by connective tissue which may become hyalinized. In the arteries the specific elastic and muscular tissue gradually is replaced until at old age the arteries no longer have the elasticity which they possessed in youth. A connective tissue with deposition of a substance known as collagen replaces the elastic fibrils and muscle cells. The intermittent pressure exerted against the vessels by the heart beat causes finally lengthening of the vessels and often increase in diameters of the lumina. Where the vessels are so little supported by surrounding tissue as they are in the brain, small pouchings and irregularities of the vessel wall leading to the formation of small aneurisms are common. No intimal thickening may be found. No atheroma need necessarily be present. The change is one which is brought about by age "per se" and should not be viewed as a disease. It is really senile degeneration, senile ectasia as it is called.

Now the interesting point about this senile ectasia of vessels is that it varies so in its distribution and in its severity. The peripheral arteries may be only slightly affected, at least they are not tortuous and are not any more palpable than one would naturally expect old arteries to be. But in the cerebral arteries the condition may be of extreme grade. There is no method of foretelling what the condition of the arteries in the interior

of the body is from the state of the palpable peripheral arteries.

In the patient under discussion there was no reason to suspect any widespread cerebral arterial change. Her mind was clear and her disposition had not shown any change. One can often diagnose the presence of cerebral arteriosclerosis by symptoms on the part of the higher centers. Gradual loss of memory and change in behavior and in environmental adjustments are important symptoms.

The first attack of eye-muscle paralysis with sudden increase in blood pressure suggested a cranial lesion, possibly a hemorrhage. With no headache, with no loss of consciousness (with not even a dulling of the mentality), and the partial paralysis of the third, fourth and sixth cranial nerves I could not place the lesion. It did not seem that increased intra-cranial pressure was present from the history, yet the blood pressure was high. It was not an attack of acute uremia. The normal N. P. N. of the blood settled that question.

When the final attack came, ushered in with slight fever and violent neuralgic pain in the left ear, I did not know what had happened. There were no paralyses other than that of the left eyeball. I thought I could make out some broncho-pneumonic areas in the lungs, but I was not at all sure, and the course was not that of pneumonia. The gradually deepening coma and the stertorous breathing suggested a cranial lesion of some kind.

The post-mortem examination explained the symptoms. "Generalized arteriosclerosis affecting particularly the cerebral, meningeal, coronary and renal arteries and aorta. Multiple aneurismal dilatations of meningeal and cerebral arteries. Aneurism of intracranial portion of left internal carotid artery. Thrombosis of left ophthalmic vein and cavernous sinus. Pressure atrophy and anemic infarction of anterior lobe of the pituitary. Pressure atrophy of the intermediate lobe. Congestion and multiple hemorrhages of the posterior lobe. Acute purulent broncho-pneumonia. Patches of non-resolved lobular pneumonia with epithelial regeneration. Emphysema. Atrophy, fatty infiltration and fatty degenerative infiltration of heart. Fatty liver, with early hepatitis. Severe chronic catarrhal gastritis and enteritis. Arteriosclerotic contracted kidney. Atrophy and chronic passive congestion of all organs. Bilateral multiple cyst-adenomas of ovaries. Polypoid glandular erosion of cervix. Old fracture of neck of left femur with formation of false joint. Old healed tubercle in bronchial nodes."

The first attack must have been due to leakage from the aneurism and hemorrhage into the pituitary gland. The final and fatal attack must have resulted from further bleeding, together with the thrombosis and with a terminal broncho-pneumonia. The sudden increase in blood pressure must have been connected with injury to the pituitary gland. Important centers which control the vegetative functions of the body are situated at the base of the brain in the sub-thalamic region which lies upon the pituitary fossa. However, one may explain it, the fact seems to be that hemorrhage into the pituitary in this particular case caused acute and prolonged increase in blood pressure.

A Third Case For Diagnosis

BY L. M. WARFIELD, M.D.
Milwaukee

In 1921 I saw a man 55 years old who was and had been engaged for years in the banking business in a neighboring city. At his first visit he complained of headaches in the back of his head and neck and dull ache down the right arm. There was nothing of importance in the family history. He had had headaches since he was 16 years old. These were periodic and often were accompanied by vomiting and transient blindness. They lasted for a day and completely incapacitated him. In recent years the headaches have been of a different character, more towards the nape of the neck. They have also been much less severe. As a child he had diphtheria several times. He never had tonsillitis. He remembered no other acute disease. He has been constipated for years and was told his rectum was narrow. He has had anal fistula and ulcers of the rectum. He developed a hernia about two years ago following a violent sneezing paroxysm.

His appetite was good. He had lost no weight (165 lbs., 5 ft., 11 in.). His habits were good.

He slept well. He was not a heavy eater. His work was inside and he had a tendency to worry unnecessarily.

He had recently noted that he was more short of breath on exertion than usual.

Several Wassermann reactions had been taken. All were negative. X-ray films of the teeth revealed no diseased teeth.

On examination he had a worried look but he was well built with good color and clear lungs and abdomen. The apex of the heart was beneath the fifth rib, 10 cm. from the mid-sternal line. The beat was heaving, there was no thrill. At the apex one heard a short systolic murmur transmitted to mid-axilla. At the aortic area a rough systolic was heard transmitted upwards, and below the aortic area a diastolic murmur was heard which did not extend below the third rib. There was marked irregular thickening of the palpable arteries. Blood pressure was 200/108. Pulse rate 84. Reflexes were all normal. The prostate was firm, slightly enlarged; the rectum felt normal.

Fluoroscopic examination of the heart revealed a large left ventricle, flattened against the diaphragm by an enlarged and very tortuous elongated aorta.

The blood and urine were normal. Functional tests of the kidney were normal.

On Jan. 26, 1926, 4½ years later, he was seen again. This time he complained of his heart. There was shortness of breath, slight weakness, slight dry cough and huskiness of his voice. He had been in good health for 4½ years. About three weeks before he was seen his blood pressure was 200/106. Within a few days it dropped to 130/70. He was quite alarmed especially as he had symptoms described above.

On examination he was thinner than when last seen. The skin had a slight lemon-yellow color but there was no jaundice. The condition of the heart was about the same except that the murmurs seemed rougher. The apex was in the same place. The pulse was large and full, vessel wall thick and nodular. Blood pressure in both arms 140/68. No abnormal pulsations. Fluoroscopic examination revealed the same condition as was seen 4½ years ago.

Hb. 70%. Reds 5,380,000. Whites 12,000. Pulse 100, temperature 97° F. The urine showed a trace of albumin and a few hyaline and coarsely granular casts and scattered red blood cells.

The discussion of this case with the progress notes will be continued in the Journal next month.

Abstract of Papers Before University of Wisconsin Medical Society

C. D. LEAKE, EDITOR

LYMPHATIC REGENERATION

BY F. L. REICHERT, M.D.

Department of Surgery, Johns Hopkins Hospital

The relationship of the lymphatic system to metastasis of cancerous tissue has been recognized for many years. This formed the basis for Dr. Halsted's radical operation for removal of breast cancer. It has been a practice in some clinics in the radical removal of cancer of the lip to perform a block dissection of the lymphatics in the drainage area a week or so before the actual removal of the cancer. The frequent failure of this technique to prevent metastasis subsequent to the removal of the carcinoma led to the question of studying the rate of lymphatic regeneration.

Billroth in 1863 could find no regeneration of the lymphatics across scar tissue after seven days. Arthur Myer in 1885 used India ink injections in the forearm of dogs to locate and excise the axillary lymph glands. After three months, an injection of a red suspension showed a deposition in small nodules in the axillary fat, and it was believed that this indicated some regeneration of lymph glands. Subsequent studies in 1906 failed to confirm this belief.

At the suggestion of Dr. W. S. Halsted, experiments were undertaken in which the tissues of thighs of dogs were completely cut through, leaving the femur and the femoral artery and vein intact. The periosteum was cut around the bone, however, and the adventitia around the vessels. In this way both the deep and superficial lymphatics were completely cut. The tissues were carefully approximated and the structures were immobilized. Possible regeneration of the lymphatics was studied by India ink injections with a very small, sharp needle in the foot pads or skin of the legs below the point operated upon. The course of the lymphatics could then be traced and they could be dissected out, or the entire leg could

be fixed in formalin, and the lymphatics studied in section.

With careful technique, it was found that the superficial lymphatics might regenerate within four days, so that uninterrupted lymph flow could take place across the cut. The deep lymphatics regenerated within eight days. Even the veins showed some evidence of regeneration within four days, so that if the femoral vein were ligated, no gangrene would result. Until the superficial lymphatic regeneration took place, there was slight edema noted in the leg distal to the cut.

These findings indicate that block resection of lymphatics a week or more before radical excision of cancerous tissue is contra-indicated.

Dr. Bunting, in discussing this important paper, pointed out the disadvantage lymphatics are under in invading scar tissue. He stated that Dr. Yates' studies in Hodgkin's disease indicated some regeneration of lymph glands in the neck. Dr. Bardeen stated that he was glad to see an important contribution to medicine made by purely anatomical methods. Feb. 27, 1926.

SURGICAL CLINICS OF SWEDEN

BY E. R. SCHMIDT, M.D.
Professor of Surgery
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Dr. Schmidt was greeted on his first formal appearance before the University medical group by a very large and appreciative audience of students and colleagues. In a talk which was illustrated by a splendid set of personally taken pictures, Dr. Schmidt told about his travels and experiences among the surgical clinics of Sweden. He advised that all interested in medicine plan carefully at some time to take a trip to Europe. In his case, he decided upon Sweden because of his interest in the country and because of the peculiar methods which had proven so successful there in surgical work.

Stockholm was described as a very beautiful and delightful city. It is often called the "Venice of of the North" and is the capital of the country. There are about six million inhabitants in Sweden and the general medical regulations seem to be admirably adopted to their needs. There are three medical schools, at Stockholm, Lund, and Upsala, with a total of about 1,000 students. The course of medical study is about nine years and students are usually thirty years old before they are ready to practice. Early in their course, the students spend a year as orderlies in the hospitals in order to ascertain whether or not they are temperamentally suited to the practice of medicine. In order to practice, the state examination must be passed and the applicant must be a citizen of Sweden. It is the ambition of the physicians and surgeons to become connected with one of the many hospitals which are supported throughout the country. These hospitals serve as centers of medical service for the district in which they are situated. The hospitals are usually planned very carefully by a joint committee of medical men and artists so that they are strikingly beautiful in many ways. They are extremely efficiently handled and are kept scrupulously clean. Built-in instrument cases and sterilizers are a feature of most of the operating rooms.

The nursing profession is taken very seriously and a more mature group of women enter this service. The nurses are under the direction of the Red Cross.

There are very careful hygienic regulations for the entire country and their uniformity makes for very great efficiency. Dr. Schmidt was particularly impressed with the care shown in compiling hospital reports, which are uniform for the country, and also with the detailed organization of clinical material. The enthusiastic interest in rational and common-sense medicine throughout all of Sweden speaks highly for the good sense of the people. March 3, 1926.

RECENT BIOCHEMICAL DEVELOPMENTS IN THE DIFFERENTIATION OF SEX

BY D. G. STEELE AND A. L. ZEIMET
Department of Genetics, University of Wisconsin

In connection with a medico-legal case, a Russian physician, Mainloff by name, devised a rather complicated chemical test for differentiating the serum of male from female humans. The mechanism of the test involved a proteolytic enzyme, an oxidizing substance, and a dye. The problem became interesting to the geneticists because of the difficulty of determining the sex of pigeons in connection with breeding experiments.

After considerable study, the following test has been devised. Three c.c. of whole blood, diluted 1:50 with distilled water, are placed in a small vial. Six drops of 1% aqueous solution of NaOCl are added and followed by one drop of concentrated HCl. Then one to three drops, depending upon circumstances, of a 1% aqueous

solution of methyl green are added. If the blood is from a female, it will remain green in color; if from a male, the green dye will be bleached out and a yellow or pink color will result.

Attempts are in progress to make this test quantitative. It has been found possible to work with blood from which all the proteins have been removed, so that it is not dependent upon the proteins found in blood. It also works in blood which has been boiled. It is apparently not dependent upon the hemoglobin for it can be determined with equal success upon serum or plasma. So far, this test has been used in the Department of Genetics upon birds and animals only. It is found to be about 80 to 85% accurate in the series of animals so far studied. A great percentage of error is found in cases of endocrine disturbance. Studies are in progress upon castrated males and spayed females and also upon animals which have received sex gland transplants. Peculiarly enough, in birds, if the test is applied to an aqueous emulsion of feathers, the color reaction is just the reverse of that found in blood. In this case the same percentage of error is found as in the case of blood.

Russian workers have also been interested in developing this test and letters indicate that they have already applied it to human beings. In one case it was stated that it has been used for determining the sex of the fetus by a study of the pregnant woman's blood. Eighty per cent accurate results are claimed. It is felt that such studies should not be attempted with the technique here described until it has been better perfected. It is evident that such a test can be of value only late in pregnancy.

The test has been found to have considerable practical value in agriculture in connection with the breeding of birds where sex cannot be determined by feathers, and in the breeding of beavers for fur. It has also been shown to be useful in determining the sex of young chicks before the sexual characteristics of the feathers appear. The medical applications of the test may become important after the details of it are more thoroughly understood.

DISCUSSION

In discussing this interesting paper, Dr. A. S. Loevenhart pointed out that the chemical questions involved were exceedingly interesting. It apparently indicates that there is less reducing substance in male blood. The presence of a greater amount of reducing agents in female blood apparently removes the bleaching substance so that when the dye is added, it cannot be bleached. Since proteins are very difficultly oxidized, they are not likely to be concerned. The test apparently has great medico-legal significance if it can be perfected to 100 per cent efficiency.

Professor L. J. Cole stated that the importance of the test in endocrine disturbances appeared significant and that this phase of the work should be further studied.

Feb. 9, 1926.

SALE OF OYSTERS REGULATED

For the prevention of oyster-borne typhoid fever, the sale of oysters in Wisconsin will henceforth be safeguarded through rules and regulations promulgated by the state board of health and officially adopted by that body this week. These are uniform with rules adopted by a number of other states, and will become effective upon official publication.

These rules were made necessary by the recent outbreak of typhoid in many sections of the country which was traced to infected oysters. With the enforcement of the new code, the state board is confident that this food supply will be safer than ever before.

Under the rules it is made unlawful to sell uncanned oysters unless they are certified or chlorinated according to prescribed procedure.

The U. S. Public Health service must approve the methods of inspection and certification used by the state regulatory body. These shall conform with the federal methods. There shall be physical examination of oyster handlers as a measure for detecting the typhoid carrier. Dealers must display certificates.

Oysters coming into Wisconsin from a state not having a certifying system approved by the U. S. Public Health service, and oysters coming from non-certified sources, must be chlorinated either before reaching Wisconsin or afterwards, but before being put on sale. Manner of chlorinating and shucking is outlined.

"There is nothing in these rules," the orders explain, "to prevent, discourage or penalize the chlorination of oysters. When inspected oysters have been chlorinated, they shall conform with the bacterial standards for certified oysters. The producer shall have the option of labeling the oysters 'inspected,' 'chlorinated,' or 'inspected and chlorinated.' No chlorination will be accepted unless such process is carried out under an inspection service which is approved by the Wisconsin director of public health."

The rules outline in detail the bacterial standards for certified and chlorinated oysters, protection in packing, shipment and distribution, and other protective measures.

The U. S. Public Health service has a list of all certified oyster producers, and sale by firms whose product is not certified is prohibited in this state.

THE WISCONSIN MEDICAL JOURNAL
OFFICIAL PUBLICATION OF THE STATE MEDICAL SOCIETY OF WISCONSIN

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Inquiries.* Any inquiry with reference to pharmaceuticals, surgical instruments or any other manufactured product which you may need in home, office, sanitarium or hospital, will be promptly answered. Address all inquiries to Wisconsin Medical Journal, or write direct to Cooperative Medical Advertising Bureau, 535 North Dearborn Street, Chicago, Illinois. The Bureau is equipped with catalogues and price lists and can supply information by return mail.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

SAVE THE CHILD'S HEART

APPROXIMATELY ninety per cent of acquired heart valve defects in children follow acute rheumatic fever, chorea or tonsillitis. The bacterial invaders of the latter diseases are among those producing endocarditis. Days or weeks after the local manifestations of rheumatic fever, chorea or severe tonsillitis appear, the organism may invade the heart valves. An inflamatory reaction occurs. Valve integrity is lost. In the healing process cicatrization plays an important part. Only when valve deformity resulting from this scar tissue contraction has taken place do heart murmurs of valvular origin become audible. This may be weeks after all local signs of the original rheumatism, chorea or tonsillitis have disappeared. With deformity of valve structure comes extra work for the myocardium. Nature now takes a hand and *gradually* builds additional heart muscle. This is a critical period of readjustment. Hypertrophic development of the heart is a slow process. Overtaxation may easily occur during this period. Strict medical supervision is necessary.

What can be done to lessen the occurrence and extent of valvular heart disease following rheumatism, chorea and tonsillitis? Keep the child at *rest* during convalescence and under *close observation* for a *longer* period of time. Let's play safe.

—M. F. R.

THE COMPENSATION TRIANGLE

AN irate foreman was berating an old English workman for what seemed to him an inexcusable mistake on a particular piece of work. The old man took the gaff for a while, then righteous anger flared up and he came back with, "I did it; I admit it was stupid of me, I am sorry about it, but why be so nasty about it?"

The old man's query with its distinctly cockney flavor has an echo that sometimes comes to the surgeon who tries to adjust satisfactorily to all concerned his compensation patient's status.

In this situation we have the eternal triangle; the injured employee who carries the heavy end of the load, the surgeon who tries to mend the damage and failing in this tries to inventory his lack of success in a precise material way, and the insurance man who pays the bill—the organized business of paying the price of hazard or carelessness or inefficiency. There is the usual audience; a judicial referee to further fair play and the employer (more or less interested in his employee's welfare and on hand to see that his bondsman does not fail him.)

If anyone envies the conscientious surgeon in this situation, he should try to wear his shoes. The average surgeon is human, a very good type of human and he appreciates the human element in others very keenly. He knows what the loss of fingers, a painful joint, a shortened leg and a host of other permanent disabilities mean to the wage earner far more often than he is credited. He knows the cunning and sometimes clumsy ways of the faker, and the surgeon's knowledge of rehabilitation (once the question of dollars is settled) is considerable. His methods of work tend to make him conservative, above all he is not apt to be egotistical.

This man is the natural foundation of the compensation triangle. It is natural for the injured man to look up to and rely on his surgeon's word, and if the surgeon's attitude is such that the employee doubts him he has fallen from his true estate. The third factor in this problem is often an impersonal one for the insurance company remains in the background. The "adjuster," a person who looks after the loosening of the money bag strings, subject to divers stipulations and more or less hedged in by laws and regulations, now comes into his own. He is usually a partisan; many of his tribe are young and not too experienced. He is apt to have a pessimistic slant on the whole subject of compensation. Casting bread on the industrial waters means little to such a man. Because he doles out the price of calamity, he sometimes tries to outdo Caesar and to dictate to all concerned in the situation.

Just as sure as this side of the compensation triangle tends to overbalance the rest, there will be the inevitable collapse and all will suffer.

Our compensation law is not perfect and like other good machines it sometimes does not work smoothly. It is essentially a social agency that insures payment for damaged human material temporarily under repair and eventually (if possible) aids the injured to resume their former

place in industry. If this work is not thoroughly in keeping with the highest ideals of our forefathers then we must readjust our idea of the meaning of "the pursuit of happiness." And ought we not, as loyal Wisconsin folks, do our utmost to make the dollar sign as inconspicuous as possible in this great social program?—R. E. M.

"FORWARD"

IN this issue we have the privilege of publishing statements on both the Connecticut and Wisconsin laws prescribing certain basic education for those who desire to treat the sick.

It is more than chance that two states so widely separated should pass almost identical laws within two weeks of each other[1] with neither state knowing what the other was doing. In Wisconsin the law came after six years of intensive study. In Connecticut the law came as result of a long grand jury investigation following the infamous diploma mill exposé.

When the medical profession of two states and a grand jury arrive at such identical conclusions, there is reason to believe that one more "blaze" has been made on the trail of progress.

BEST SELLERS

DESPITE the unquestioned benefits that have been given to the general public by the medical profession, there has been and often is a misunderstanding between the two that sometimes leads to more or less antagonism on the part of the public. The causes of this unfortunate condition are numerous and must, of necessity, not be entirely onesided. Perhaps the most important factor is the disregard for facts in published statements; derogatory to the regular profession and laudatory to irregular cults.

Ever since the days of Molliere, the physician has been the subject of ridicule, irony and satire, in literature and on the stage. At the present time Bernard Shaw in England is carrying on the role and in France a contemporary play entitled "Dr. Knock" by Jules Romains has been a marked dramatic success.

In this country that unique list, the so-called "Best Sellers" shows what the people are reading and where they get their information. Sinclair Lewis' insult to the medical profession entitled, "Arrowsmith," was in this list for a few fleeting weeks, and its publication is too recent for further comment.

Such attacks, even when dignified by literary or dramatic merit; or those of the anti-medical propagandist, that rarely have merit of any description, have, almost invariably, been treated with disregard and have not been answered by the medical profession, or by the seriously minded physician.

It is therefore encouraging, indeed, to find in the more recent lists of popular books some works that give the other side of the story. Notably, "The Medical Follies," by Maurice Fishbein, its subtitle, "An Analysis of the Foibles of Some Healing Cults, Including Osteopathy, Homeopathy, Chiropractic and Electronic Reactions of Abrams with Essays on the Antivivisectionists, Health Legislation, Physical Culture, Birth Control and Rejuvenation," explains its contents. That this should be, for a time, in great demand shows a desire for information upon these subjects that has heretofore not been easily accessible.

But of still more favorable import is the fact that "The Life of Wm. Osler" should be listed among the best sellers. Could there be a more fitting answer to Lewis' diatribe against all physicians, than in Cushing's story of one physician?

The establishment of a proper relation between the public and the profession requires only that the facts be known. The above mentioned works are available and have been utilized by the people and it is along these lines and not those of legislation, that progress will be made.

Such books as the above; the publication of "Hygeia"; the activities of the Gorgas Memorial Institute, and those of the Friends of Medical Science, (the latter being composed entirely of non-medical individuals) are all straws that show the wind that is to dispel the mist of ignorance that obscures and interferes with the proper relationship between the public and the medical profession, whose interests are mutual.—F. G. C.

CONTRACT PRACTICE

The Judicial Council of the A. M. A., has presented the following definition of contract practice: "By the term 'Contract Practice' as applied to medicine, is meant the carrying out of an agreement between a physician or group of physicians to furnish partial or full medical service to a group or class of individuals for a definite sum or for a fixed rate per capita." This is a terse, pointed definition sufficiently clear to enable one to perceive when one violates the Principles of Medical Ethics.

[1] Wisconsin, June 13, 1925; Connecticut, July 1, 1925.

THE PRESIDENT'S PAGE

Joseph F. Saint

A DAY WITH THE SECRETARY

I recently had the opportunity of spending some time with our Secretary at the new offices of the Wisconsin State Medical Society at 153 Oneida Street, Milwaukee.

The old office in the Anti-Tuberculosis Association Building, while answering admirably for a beginning when counsel was needed so frequently, became inadequate for the now rapidly expanding work of the Secretary's office.

The present office consists of two pleasant, good sized rooms with outside light located in the Academy of Medicine Building. The present quarters give the Secretary a much needed private office, affording at the same time ample space for the clerical help. The offices adjoin the library of the Academy of Medicine which is open to the medical profession at large. The present offices are plain and unpretentious but light, airy and roomy and are in keeping with the dignity of the State Medical Society and the splendid work being carried on by its Executive Secretary.

One has only to spend a few hours in the Secretary's office to get at least some idea of the broad scope of the work and the multitude of details that daily come to his attention. The office is the clearing house for all the county societies, for the various medical boards and for the committees of the State Medical Society and its officers. Every mail brings in requests for help, information, or advice from individual members. All the details of the arrangements for the State Society meetings, including the scientific and commercial exhibits as well as the details of the Program and Arrangement Committee's work, must pass through his hands. All the scientific matter for the Wisconsin Medical Journal, as well as the advertising contracts, are handled through his office which is also the publication office of the Journal.

The Secretary aims to visit each of the fifty-one county societies and the various councilor district societies as often as possible.

The work of our Society with an Executive Secretary has attracted widespread attention in other states, several of which have followed our example by employing full time secretaries. As a result of the work done for our State Society, our Executive Secretary has had other very flattering offers of similar positions for state and national organizations. His pride in building up the Wisconsin State Medical Society and his love for the work have led him to refuse these offers, even at an increased salary.

Our Secretary is thinking constantly of our interests and working to bring about measures for our betterment. He richly deserves the more comfortable and commodious offices now provided for him and his office force, and he deserves the support, help and encouragement of every member of the Wisconsin State Medical Society.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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Barron-Polk-Washburn-Sawyer-Burnett	C. C. Post, Barron	D. L. Dawson, Rice Lake.
Brown-Kewaunee	F. J. Gosin, Green Bay	F. M. Harris, Green Bay.
Calumet	J. A. Schmidt, Brillion	H. C. Krohn, New Holstein.
Chippewa	L. A. Larson, Colfax	C. A. Cooper, Colfax.
Clark	H. H. Christofferson, Colby	F. P. Foley, Dorchester.
Columbia	A. F. Schmeling, Columbus	H. E. Gillette, Pardeeville.
Crawford	W. W. Coon, Gays Mills	T. E. Farrell, Seneca.
Dane	Louis Fauerbach, Madison	R. B. Montgomery, Madison.
Dodge	J. F. Brown, Waupun	A. A. Hoyer, Beaver Dam.
Door	John Hirschboeck, Forestville	T. C. Proctor, Sturgeon Bay.
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Juneau	C. A. Vogel, Elroy	A. T. Gregory, Mauston.
Kenosha	W. C. Stewart, Kenosha	H. A. Binnie, Kenosha.
La Crosse	Sigurd Gunderson, La Crosse	N. P. Anderson, La Crosse.
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Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
American Medical Association	Olin West, Chicago	Dallas, April 19-22
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis	Milwaukee, May 28-29
Medical Examiners	R. E. Flynn, La Crosse	Milwaukee, April 14
Milwaukee County Medical Society	E. L. Tharinger	Pfister Hotel, 8:15, May 14
Milwaukee Academy of Medicine	D. E. W. Wenstrand	153 Oneida St., 8:15, Apr. 13, 27
Milwaukee Neuro-Psychiatric Society	W. T. Kradwell	153 Oneida St., 8:00, April 22
Milwaukee Oto-Ophthalmic Society	Edward Ryan	Univ. Club. 6:30, April 20

COUNCILOR DISTRICT MEETINGS

First (Dodge, Jefferson, Waukesha)	
Second (Kenosha, Racine, Walworth)	Racine
Third (Dane, Columbia, Green, Rock, Sauk)	
Fourth (Crawford, Grant, Iowa, LaFayette, Richland)	
Fifth (Calumet, Manitowoc, Sheboygan, Washington-Ozaukee)	Elkhart Lake, July 1-2
Sixth (Brown-Kewaunee, Door, Outagamie, Fond du Lac, Winnebago)	
Seventh (Juneau, LaCrosse, Monroe, Vernon, Trempealeau-Jackson-Buffalo)	Sparta, May.
Eighth (Marinette-Florence, Oconto, Shawano)	
Ninth (Clark, Green Lake-Waushara- Adams, Lincoln, Marathon, Portage, Waupaca, Wood)	Stevens Point, May (19?)
Tenth (Eau Claire and Associated, Chippewa, Pierce, Rusk, St. Croix, Barron-Polk-Washburn-Sawyer-Burnett)	Eau Claire
Eleventh (Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas, Price-Taylor)	
Twelfth (Milwaukee)	

DANE

The regular meeting of the Dane County Medical Society was held in the Lecture Room of the Wisconsin General Hospital on March 23rd. Case reports were presented by Drs. H. K. Tenney and R. L. Bower. Dr. R. C. Blankinship gave a paper on "Cholecystography."

—R. B. M.

DOUGLAS

Dr. J. P. Schneider of the Nicollet Clinic of Minneapolis spoke before the Douglas County Medical Society at the Androy, Superior, on Wednesday evening, March 10th. A number of Duluth physicians also attended the meeting.—E. E. C.

KENOSHA

During 1925 the Kenosha County Medical Society held ten regular meetings, two of which were of social nature. The Racine and Walworth County Medical Societies were invited to a luncheon in Kenosha in May. The state secretary, Mr. Crownhart, attended this meeting also. Questionnaires were circulated at this luncheon and discussions followed on the subjects which dealt largely with industrial and socialized medicine.

The lawyers and dentists of Kenosha were invited in September to a banquet by the physicians. Mr. Walter Corrigan of Milwaukee was the speaker and spoke on "The Defense of Aaron Burr."

The society has been conducting a campaign against free medical treatment being given to other than charity cases and invited representatives from the Civic Council Health Department and Service League to meet with the physicians to discuss and combat the growing evil. A committee of three physicians meet and confer with the heads of these organizations. The Kenosha County Medical Society has taken a membership in the Kenosha Civic Council and have two delegates who attend these meetings and report to the society.

We also have a committee on ethics whose duty it is to seek out and bring illegal practitioners to justice.

The society is interested in politics to the extent of furthering all measures in the legislature that benefit the public and do not interfere with physicians' rights.

Dr. Carl Hedblom of Madison spoke at the April meeting on "Surgical Aspect of Tuberculosis." The dentists were invited to this meeting. Mr. Crownhart outlined his work at the January meeting and Dr. M. J. Hubeny of Chicago gave a talk on "Subsidized Medicine and Medical Men" in October. At the November meet-

ing we inaugurated a Clinic Night at which the local physicians reported interesting cases they were treating.

The staffs of St. Catherine's Hospital and Kenosha Hospital are all members of the Kenosha County Medical Society and each staff conducts a monthly meeting at which case reports are presented and discussed.—H. A. B.

LA CROSSE

The new officers of the La Crosse County Medical Society for the year 1926 follow: President, Dr. Sigurd Gunderson; Vice-President, Dr. J. E. McLoone, and Secretary-Treasurer, Dr. N. P. Anderson,—N. P. A.

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society met on Tuesday evening, March 23rd. Dr. Phillip Desbois presented a paper on "New Oral Treatment of Syphilis as administered in St. Lazare and Salpatrire Hospitals in Paris". Dr. W. S. Jones, Menominee, Michigan, gave a very instructive paper on "Acute Mastoiditis" with illustrations. M. D. B.

MILWAUKEE

The members of the Milwaukee County Medical Society met at Hotel Pfister Friday evening, March 12th. The subject "The General Problem of Heredity" was presented by C. E. Thoraldson, Professor of Biology, Northwestern University, Evanston.

The new by-laws were adopted at this meeting. These provide for a board of five directors and the following were elected to constitute this board: Drs. P. M. Currer, one year; W. H. Halsey, two years; H. J. Gramling, three years; C. H. Stoddard, four years; R. W. Blumenthal, five years. Hereafter applicants for membership will be passed upon by the board of directors. Before the election the names will be sent to all the members of the society.—E. L. T.

OUTAGAMIE

The February meeting of the Outagamie County Medical Society was held at the new office building of Dr. G. J. Flanagan, Kaukauna. Dr. Flanagan has recently constructed a one-story brick office building. A delicious fish dinner was served and the entire evening was turned over to social affairs. About fifty physicians were in attendance.—E. L. B.

ROCK

Organization of the Rock County Medical Milk Commission, which is to have as its object the standardization of milk and milk products, has been announced by the county society. Dr. W. A. Munn, Janesville, was elected president of the commission; Dr. F. B. Welch, Janesville, secretary, and Dr. G. W. Belting. Orfordville, vice-president. Other members are: Drs. G. E. Crosley, Milton; J. R. Harvey, Footville; W. O. Thomas, Clinton; J. P. Guilfoyle, Evansville; Arthur Knilans, Janesville; B. L. Cleary, Edgerton, and L. M. Field, Beloit.

This organization is equipped to make the necessary investigation and inspection to certify milk so that it can be sold as certified milk. Any milk producer who wants to have his milk certified may call on any member of the commission and file an application. The commission will outline the necessary requirements. The next meeting will be held on April 12th in the office of the president, Dr. Munn. Papers will be submitted at that time by Dr. Knilans on "Tuberculosis in Cows and Milk;" Dr. Welch on "Tuberculosis as a Disease Produced by Milk;" and Dr. Field on "Bacteriology of Tuberculosis as Regards Milk."—G. K. W.

SHEBOYGAN

The regular meeting of the Sheboygan County Medical Society was held on Tuesday evening, April 6th. Mr. Walter J. Kohler had invited the members of the society to be guests of the Kohler Company on an inspection tour of the factories and to a dinner at the American Club.

Dr. J. C. Elsom, director of Corrective Gymnastics and head of the Department of Physio-Therapy at the University of Wisconsin, was the speaker of the evening. His subject was "Physio-Therapy in Industrial Cases." —H. C.

WAUKESHA

Dr. William J. Egan of Milwaukee spoke before the members of the Waukesha County Medical Society at their April meeting on the afternoon of the 7th. The meeting was devoted to a discussion of the problems in the field of internal medicine. Following the program dinner was served at the Majestic Hotel, Oconomowoc. —S. B. A.

GREEN BAY ACADEMY OF MEDICINE

Dr. A. Charbonneau presented a paper on "Surgery of the Gall-Bladder, With Reference to Drainage and Removal" at the March meeting of the Green Bay Academy of Medicine, which was held at St. Vincent's Hospital. Drs. Frank Wochos and P. R. Minahan led the discussion.—E. G. N.

MILWAUKEE ACADEMY OF MEDICINE

Dr. James Stuart Pritchard, head of Section of Diseases of the Chest, Battle Creek Sanitarium, Battle Creek, Mich., presented the address of the evening at the meeting of the Academy on March 9th. His subject was "The Significance of Cough with a Description of the Diagnostic and Therapeutic Use of Iodemised Oil in Bronchial Affections."

The Academy met for the first time in their new home at 153 Oneida Street on March 23rd. Dr. I. A. Abt, Professor of Pediatrics at Northwestern University Medical School, was the principal speaker of the evening.—D. E. W. W.

MILWAUKEE OTO-OPHTHALMIC SOCIETY

The March meeting of the Milwaukee Oto-Ophthalmic Society was held on the evening of the 16th at the Uni-

versity Club. Dr. Roy A. Barlow, Madison, presented a paper on "The Present Status of Sinisitis in Children" illustrated with lantern slides. The discussion was opened by Dr. T. L. Tolan.—E. R. R.

MILWAUKEE PEDIATRIC SOCIETY

The Milwaukee Pediatric Society was organized Wednesday evening, March 17th, at the Milwaukee Children's Hospital. Sixteen Milwaukee pediatrists became charter members. The following officers were elected: President, Dr. L. Boorse; Vice-President, Dr. R. P. Greenthal, and Secretary-Treasurer, Dr. M. G. Peterman.—M. G. P.

RADIOLOGICAL SECTION

The joint meeting of the Radiological Section of the State Medical Society and the Outagamie County Medical Society was held at Appleton on April 6th, with headquarters at the Conway Hotel. A noon luncheon at the hotel preceded the afternoon program at St. Elizabeth Hospital. Dr. E. J. Carey, Professor of Anatomy, Marquette University Medical School, presented the subject "Anomalies of the Body," accompanied by lantern slides; Dr. Joseph F. Smith, president of the State Society, Wausau, spoke on "X-Ray in the Diagnosis and Management of Fractures." A paper on "X-Ray Diagnosis of Bone and Joint Diseases" was read by Dr. C. G. Sutherland, Mayo Clinic, Rochester, Minn., and an x-ray diagnostic clinic concluded the program for the afternoon.

Following the banquet the physicians met at the Conway Auditorium where Dr. B. C. Cushway, Chicago, president of the Radiological Society of North America, spoke on "Gastro-Intestinal Diseases." Dr. W. S. Middleton, Madison, presented a paper on "Chest Diseases" and Dr. J. C. Sargent, Milwaukee, one on "Urological Diseases."

NEWS ITEMS AND PERSONALS

In the March issue of the Journal we stated, "Dr. W. J. Winnemann, Milwaukee, has been appointed assistant chief of staff of the Deaconess Hospital of that city." The Journal finds its source of information was in error.

Dr. J. W. Lambert, Antigo, spoke on "Heart" before the students of the Langlade County Normal recently. The doctor's talk brought a score of questions from the students who were much interested in the presentation.

Following the dinner given by the Rotary Club at the Wausau Club House during March, Dr. Joseph F. Smith, president of the State Society, told the members of the debt due to Pasteur and Lister for their discoveries upon which modern surgery has been built. Dr. Smith's talk was of great interest to the Rotarians.

Dr. J. J. Bowes, prison physician and assistant superintendent of the Central State Hospital for the Insane, Waupun, has severed his connection with the state service and John Van Hengel, assistant steward, has been placed temporarily in charge. Dr. W. P. Smith, Waupun, has been appointed temporarily as visiting physician for the State prison and the Central State Hospital.

A damage suit which Mrs. Amanda Klauk had instituted on a malpractice charge against Dr. George M. F. Scholz, Milwaukee, was taken from the jury and nonsuited by the circuit judge who held that the evidence produced by the plaintiff did not in any way sustain the complaint.

Hypertension was the subject of the address by Dr. George H. Williamson of Neenah, at the meeting of the Sixth District Nurses' Association on March 10th at the Appleton Women's Club. Dr. Carl D. Neidhold of Appleton presented a paper on Obstetrics.

Dr. and Mrs. George J. Juckem, Sheboygan, who have been in Vienna, Austria, where the doctor attended the American Medical Association clinic for the past four months, have returned to the states. They sailed from Hamburg on March 17th and visited at East Orange, N. J., New York City and Chicago enroute.

While spending several weeks on the west coast of Florida Dr. R. C. Buchanan of Green Bay captured a 500-pound sea turtle. It was caught about thirty-five miles out from shore on the Gulf of Mexico coast of Florida. The captured turtle was tied to a couple of trees in front of the Suwanee Hotel, St. Petersburg, but attracted such crowds that traffic conditions became serious. It was then removed to a shop where the head is being mounted and the shell prepared. The doctor is not saying a great deal until his "proof" comes in.

Physicians employed by the city of Milwaukee, including those at the Emergency Hospital, may charge a small fee for making out insurance certificates and other commercial documents, was the opinion given Dr. John P. Koehler, health commissioner, by City Attorney John M. Niven.

The decision is the outgrowth of a recent complaint launched by an insurance company against the $2.00 fee charged by an emergency hospital physician who made out a certificate.

Dr. A. V. De Neveu, Rhinelander, district health officer, was the principal speaker at the Parent-Teachers' meeting held at Washburn on March 4th. His topic was "Health and Right Living." The P. T. A. is carrying on a health campaign and this lecture was one of its features.

Dr. Frank Peyton Gaunt, Rochester, Minn., has been appointed medical director of the Emergency Hospital, Milwaukee. He will assume charge on April 1st at a salary ranging from $4,200 to $4,500 a year. Dr. Gaunt is a graduate of the University of Missouri and the Harvard Medical School. He has served as house officer of the Massachusetts General Hospital, Boston, and was

connected with public health service in China for several years, where he was superintendent and chief surgeon of the general hospital at Wuhu, China, and for the Red Cross at Wuhu.

A directed verdict of $10,250 was awarded Drs. M. H. Rosenheimer, Sr., and Rosenheimer, Jr., in federal court recently against the Fidelity and Casualty Company of New York. In settlement of a malpractice suit the physicians, owners of Lincoln Hospital, Milwaukee, paid $10,000 and attempted to collect the amount from the insurance company. The company refused to meet the claim which resulted in the case being brought to federal court.

Members of the Nurses' Association of the twelfth district met at Kohler recently and visited the medical department, plant and offices of the Kohler Company. Dr. M. D. Cottingham explained the uses of the equipment in the medical department and at a short meeting later in the afternoon gave a talk on some phases of the work.

Dr. Fred Z. Havens of Waupun has accepted a fellowship in the Mayo Foundation at Rochester, Minn., and is now taking a special course in ear, nose and throat work. Dr. Havens has been associated with Dr. F. T. Clark of Waupun.

City health commissioner, Dr. L. M. Field, Beloit, spoke on the health conditions of that city at a noon shop meeting of the Yates-American Company recently.

Dr. Clyde W. Morter has announced that he is specializing in diseases of the colon and rectum. The doctor maintains his office at 230 Grand Avenue, Milwaukee.

Employment of Dr. Russel Kurten as physician for the Racine Tuberculosis Society was authorized at a recent meeting. The society appropriated $225 for the employment of Dr. Kurten who will make such physical examinations of children as the health commissioner may direct.

Dr. Erwin R. Schmidt, Professor of Surgery at the University of Wisconsin, spoke on "Surgical Clinics of Sweden" at a joint meeting of the University Medical Society and the Sigma Sigma Honorary Medical Fraternity held on March 3rd. The lecture was illustrated with a series of lantern slides made from pictures taken by Dr. Schmidt in connection with his study and travel abroad the past year.

When the Southern Wisconsin Aero Club was launched upon its career recently, Dr. George L. Ross, Kenosha surgeon, became the god-father of aviation in this state. Dr. Ross announced that he had procured a forty acre landing field ideally situated for aeronautic purposes near Racine. The aero club was established to encourage aviation, provide flying field and hangar facilities, sponsor air meets and to lend its support to any movement calculated to stimulate interest in flying.

A number of Sheboygan and Sheboygan Falls physicians and surgeons have subscribed to a telephone service bureau to enable them to render better service to their patients. Following is the list of doctors who are members of the bureau: Drs. O. B. Bock, G. Brueckbauer, B. J. Glaubitz, Emil Gunther, O. J. Gutsch, G. Hildebrand, H. W. Howe, Arthur Knauf, Edmund Knauf, F. W. Nause, Sr., F. A. Nause, Jr., Adam Pfeiler, E. S. Ryan, C. Sonnenburg, Willard Sonnenburg and C. J. Weber.

The members of the service bureau can be had at a moment's notice by calling No. 500. Should it so happen that the family physician is unable to come because of being on another case, the operator will get any other physician in the service bureau who is asked for, until the family physician is able to answer the call. By means of this improved service, the public always will be assured of immediate medical care.

"Health Observatories" from which forecasts of approaching epidemics will be sent out, have been established in the forty-four largest cities of Illinois by Dr. Isaac D. Rawlings, state health director, who adopted the idea from the government weather bureau.

Each station is supplied with a weekly statement showing the number and location of all reported cases of contagious disease in its territory. With this information, the local health officer can determine the danger and take steps to overcome it.

The clinic composed of Drs. George N. Pratt, H. A. Briggs and Henry Schultz have leased offices in the Jandrey Block, Neenah. Their former quarters were in the Weinke Building.

In anticipation of the building of the new five hundred bed county hospital at Wauwatosa and the new fifty bed emergency hospital at Milwaukee, within a year, three county doctors are planning a trip throughout the United States to study hospital conditions. They are Dr. Louis M. Warfield, clinical director of the Milwaukee County Dispensary; Dr. Harry M. Sargent, superintendent of the County Hospital, and Dr. Francis D. Murphy, clinical director of the County Hospital.

The state hygienic laboratory at Madison has diagnosed cases of communicable diseases for 2,000 Wisconsin doctors during the past year, according to Dr. W. D. Stovall, director of the laboratory. From 40,000 to 50,000 specimens are examined yearly at the laboratory and last year nearly 5,000 doses of typhoid vaccine were distributed free of charge, Dr. Stovall announced.

Dr. John T. Tasche, Sheboygan, has returned from Europe where he spent most of the past four months studying under Dr. Hans Fisterer, Professor of Surgery at the University of Vienna. He also visited clinics in Leipzig, Paris and London.

Dr. A. M. Carr, city health officer of Madison, addressed the Annual Conference of Public Health Nurses at the State Capitol March 17th on "School Health Education Program."

Dr. Karl Schlaepfer, Milwaukee, spoke on "The Effect of the Inhalation of Zinc Stearate or Talcum Powder by Infants" before the Pediatric Society at the Children's Hospital recently. Dr. Schlaepfer stated that often while being bathed, infants spill the contents of the can into their mouths and in a number of these cases the result has been fatal. He explained the pathologic process which causes death in such instances and recommended the adoption of a new self-closing container for nursing use.

With the appointment of councilor district chairman, a state-wide organization drive has been opened for the Marquette Alumni Association of the Marquette University School of Medicine. Dr. Lee Curtin, Milwaukee, is general chairman of the membership committee. Other district chairmen are Drs. J. P. Zohlen, Sheboygan; J. Francis Wilkinson, Oconomowoc; R. C. Thackeray, Racine; William C. Ganser, Madison; J. C. Doolittle, Lancaster; E. F. McGrath, Appleton; M. A. McCarthy, La Crosse; C. J. Ouelette, Oconto; I. M. Addleman, Wausau; E. P. Hayes, Eau Claire, and William Schnell, Superior.

Under the direction of Dr. John P. Koehler, Health Commissioner of Milwaukee, an active campaign has been instituted for the purpose of ridding Milwaukee of illegal practitioners of medicine and other forms of the healing art. The campaign is being carried on with the active cooperation of Senator Oscar Morris, chairman of the Better Business Bureau of the Milwaukee Association of Commerce, members of the city and district attorneys' offices, the police department, and the secretary of the State Medical Society. Several warrants have already been issued and the Common Council of Milwaukee has appropriated $200 to be used in securing evidence against the illegal practitioners.

Senator Morris and others interested are making efforts to the end that this drive may result in a permanent field investigator who will work continuously throughout the state.

Word from the home of Dr. C. C. Del Marcelle, Green Bay, is to the effect that the former Neenah physician and surgeon, who sustained a broken back in an automobile accident last spring, is making steady progress toward limited recovery and eventually plans to resume practice. Paralyzed from the waist down for months, Dr. Del Marcelle is gradually regaining the use of his limbs and is now able to be about on crutches.

Dr. F. L. Hodges, Monroe, has returned to his home from Madison where he underwent a serious operation at the Wisconsin General Hospital. It is reported that the doctor is recovering rapidly.

Dr. Louis R. Head, President of the Madison chapter of the Wisconsin Anti-Tuberculosis Association and superintendent of Morningside Sanitarium, spoke before the Annual Conference on Public Health Nursing held at Madison the week of March 15th. He spoke on the value of the nurse's aid in fighting tuberculosis.

MARRIAGES

The marriage of Dr. Lee J. Liest, Milwaukee, intern, graduate of Marquette University, to Miss Mary Gleeson, also of Milwaukee, was announced recently. The marriage was performed at Cut Bank, Montana, on September 19, 1925.

Dr. C. W. Andrews, Waupaca, and Miss Olive Danielson were united in marriage on February 17th.

DEATHS

Dr. John H. Rohr, North Milwaukee, died at his home on March 9th after a long illness. Dr. Rohr, a county physician for more than twenty years and medical director of the House of Correction since its establishment in North Milwaukee, had practiced in the suburb twenty-nine years. He was born in Racine county in 1869 and was graduated from the Wisconsin College of Physicians and Surgeons, Milwaukee, in 1897. Dr. Rohr was a member of the Milwaukee County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife, a son and a daughter.

Dr. William M. Larrabee, Waupun, died suddenly on Sunday, March 7th, at Biloxi, Miss. He died exactly a week after his marriage to Miss Amelia Shilling of Berlin. Dr. Larrabee was born in Fond du Lac County in 1852 and was graduated from Rush Medical College in 1876. He had spent the past two years at Biloxi.

Dr. David N. Alcorn, Sierra Madre, Calif., passed away on February 11th. He had for many years been engaged in practice at Stevens Point but left for the west about six years ago. Dr. Alcorn was born in 1856 and was graduated from the College of Medicine of the University of Illinois in 1892. He is survived by his wife, a daughter and two sons.

Dr. A. F. Schoen, Mayville, died at the Beaver Dam hospital on March 2nd. He was born in 1850 and was a graduate of Rush Medical College in 1883. Dr. Schoen is the father of Dr. Roland E. Schoen of Beaver Dam.

Dr. R. A. Schlag, Prairie du Sac, died suddenly at his home on Tuesday afternoon, March 9th. He was born in 1879 and in 1903 was graduated from the Denver and Gross College of Medicine at Denver, Colo. Dr. Schlag has practiced medicine at Prairie du Sac for the past seventeen years and despite poor health, was still attending to calls. Until the past year the doctor was a member of the Sauk County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

SOCIETY RECORDS

NEW MEMBERS

Zmyslony, W. P., 185 Hazel St., Oshkosh.
Bowing, Irwin, Groos Bldg., Kenosha.
Jones, Louis, E., Prescott.
Sprague, L. V., Wisconsin General Hospital, Madison.
Blekking, J. H., Sheboygan.

Scott, J. J., Durand.
Alley, H. C., Eleva.
Reist, P. Z., 312 So. Second Ave., Wausau.
Hanko, Mary E., Lime Ridge.
Kretchmar, L. H., 1640 Teutonia Ave., Milwaukee.

CHANGES IN ADDRESS

Wadey, B. J., Sycamore, Ill., to Belleville.
Ainsworth, H. H., Madison, to Birchwood.

CORRESPONDENCE

TOUCHÉ

In the last issue of the Journal there was published a diagram indicating the new location of the State Medical Society offices at 153 Oneida Street. To aid the reader in recognizing the location our artist labeled certain land marks within the diagram and in so doing pointed out the location of two police stations, whereupon we received the following from a member in the western part of the state:

"How easy to remember your office site,
Your chart of location is "shurly" just right;
For on the East Side we chance to stroll,
And we can't find you, we'll call the Patrol.
Not that the office bears any relation
To the splendidly marked "Double" Police Station,
Where stay the Police, all very polite,
They'll keep us on East—Steer us just right—
If you're away on some "Secretarial" flight
We can camp at "their place" and stay over night."
—C. A. A.

FROM COLORADO

University of Colorado,
School of Medicine,
Denver, Colorado.
March 12, 1926.

Wisconsin Medical Journal,
558 Jefferson St.,
Milwaukee, Wisconsin.

Gentlemen:

It has been suggested to us by an editor of one of the state journals that you might be willing to send us a complimentary subscription to your state journal. If you care to do so we will be very grateful indeed to receive it. Our library as a separate entity is in its infancy and our funds are not yet sufficient to allow us to subscribe for the state journals even though our steadily growing reference work for students and faculty calls for them continually.

Very truly yours,
(Mrs.) Esther M. Brunquist,
Librarian.

SILICOSIS

March 5th, 1926.

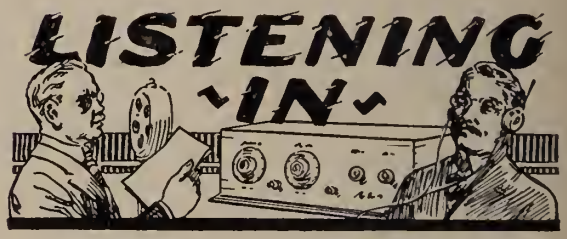
Editor, Wisconsin Medical Journal,
Milwaukee, Wisconsin.

Dear Sir:

I am transmitting herewith a copy of a special bulletin just issued by the Bureau of Industrial Hygiene of the New York State Department of Labor comprising a resume of the literature of Silicosis, which was arranged for the use of the physicians in the state of New York.

Could you spare sufficient space in your valuable journal to announce that this bulletin is available gratis to any physician applying for it? Address: Director, Bureau of Industrial Hygiene, New York State Department of Labor, 124 East 28th Street, New York City.

Very truly yours,
Leland E. Cofer,
Director, Bureau of
Industrial Hygiene.



WISCONSIN STANDS HIGH

In the several reports of the Secretary and General Manager, the Board of Trustees, and other officials of the American Medical Association, published in the J. A. M. A. for March 20th, Wisconsin holds a high place.

With 73% of all physicians in the state members of the state medical societies, Wisconsin and Minnesota lead all states having 2,000 or more physicians within their borders. Iowa has approximately 70% membership and in other middle west states Michigan has 68%, Illinois 65%, Ohio 64% and Indiana 63%. The percentages are approximate.

In the percentage of physicians in the state receiving the Journal of the American Medical Association, Wisconsin stands fourth. New Jersey is first with 71%, Illinois second with 70%, Minnesota and Nevada tied for third with 69%, while Wisconsin has 67%. According to the figures of the 2.826 physicians in the state. 1,890 receive the Journal of the A. M. A.

Wisconsin has also risen to ninth place in a percentage per 100,000 population receiving Hygeia. According to the report Wisconsin has 1,418 subscribers, of which number 416 are physicians and 1,002 laymen.

COST OF DELINQUENTS

That the cost of removing and subsequently restoring the name of a delinquent is not less than $1.00, was the statement of Dr. Olin West, Secretary of the American Medical Association.

"In December of each year, and in the early months of the succeeding year, many names are removed from membership records because of delinquencies in the payment of dues to the secretaries or treasurers of constituent state associations, only to be restored later on when these deliquencies have been discharged. Thus the work of those charged with the duty of keeping these records is greatly and unnecessarily added to, and thus

the expense incurred by county societies, state associations and the American Medical Association is unnecessarily increased. The cost of removing and then restoring the name of a member who has carelessly failed to keep himself in good standing is not less than one dollar and is probably considerably more. When hundreds of members, through their failure to pay dues when due, make such procedure necessary, year after year, it is easy to see that their thoughtlessness is directly responsible for a very considerable expenditure that might easily be saved."

TAX REDUCED

Physicians of Wisconsin will save upwards of $5,000 a year as result of the reduction of the fee for narcotic permits from $3.00 to $1.00. The reduction was secured by the American Medical Association with the help of constituent state associations.

IN NORTH CAROLINA

The following item appeared in the J. A. M. A. for March 13th:

"The North Carolina legislature, in 1925, amended the law providing for the physical examination of applicants for marriage licenses, so that it now requires physicians to examine these applicants and issue them certificates without charge. The amendment is in part as follows:

"'That such certificate shall be executed by some reputable physician licensed to practice medicine and surgery in the state of North Carolina, whose duty it shall be to examine such applicants and issue such certificate without charge: *Provided, however,* that no such certificate shall be valid outside of the county in which such physician resides unless the same shall be accompanied by a certificate of the clerk of the Superior court of the county in which such physician resides to the effect that the person who signed such certificate is a reputable physician and surgeon actually engaged in the practice of his profession.'"

"This amendment is said to have been introduced by N. A. Townsend of Dunn, and passed just previous to the close of the session."

Wisconsin's Basic Science Law*

BY MICHAEL F. GUYER, Ph.D.
Secretary, Board of Examiners in the Basic Sciences
Madison

The Wisconsin Basic Science Law passed by the legislature of 1925 and in effect since June 12, 1925, is based upon the conviction that it is not only undeniably a state's right but its duty to protect its citizens against fraud, ignorance or lack of skill on the part of those who profess to treat the sick. And to "treat the sick," in the words of this law, is "to examine into the fact, condition, or cause of human health or disease, or to treat, operate, prescribe, offer, advertise, announce, or hold out in any manner to do any of said acts, for compensation, direct or indirect, or in the expectation thereof."

By way of further information as to what is to lie within its scope the law goes on to specify that "'Disease' includes any pain, injury, deformity, or physical or mental illness or departure from complete health and proper condition of the human body or any of its parts."

The design of the statute is not to render unlawful any particular mode of treatment, but to insure that those who make an occupation of treating the sick shall have sufficient knowledge of the human body in health and disease to make it safe for them to do so. To prove that they have this knowledge, all candidates for license to treat the sick are required to pass examinations in the four basic sciences of human anatomy, physiology, pathology, and diagnosis before they can come before their particular licensing board. These examinations are conducted, by a board of three members, "not less than four times a year." To guard against possible bias or prejudice on the part of such a board toward any particular system or school of treatment the requirement is made that, "the board shall consist of three lay educators, none of whom shall be on the faculty of any department teaching methods of treating the sick." The present board consists of two biologists and a chemist. That such a lay board, however, may have at its disposal any technical aid which it may need or desire, it is empowered to "appoint such competent and recognized experts as shall be necessary to assist in the examinations, and necessary clerks," who, "shall receive such compensation as the board may fix."

Although no state licensing board for any branch of treating the sick is permitted to admit to its examinations or to license or register any applicant until such person presents a certificate of registration in the basic sciences, candidates are not necessarily compelled to pass examinations twice in the same subjects, for the licensing boards are permitted, at their discretion, to accept the

*Presented before the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, Chicago, February, 1926.

basic science certificate in lieu of examination in the subjects of anatomy, physiology, pathology, and diagnosis.

Provision is made for reciprocity with other states or foreign countries, the standards of which are as high as those of Wisconsin. Inasmuch as the attorney-general has ruled that chiropractors from other states are not eligible to reciprocity, the only applicants who can comply with the requirements are those who must also secure their license from the state board of medical examiners, hence, as regards reciprocity, the basic science board has, for the time being, adopted the standards of the medical board as its own. By so doing much needless confusion and clerical work is avoided.

The law further states that "any person who on February 1, 1925, was regularly licensed or registered in the state of Wisconsin to treat the sick need not be registered under the basic science law." This includes not only those who were licensed to practice medicine and surgery or osteopathy and surgery, but also midwives, chiropodists and masseurs. The further specification is added that "any person who, on February 1, 1925, was not registered or licensed in the state of Wisconsin to treat the sick but nevertheless on that date was lawfully engaged in this state in treating the sick shall be registered upon presenting to the board within sixty days after this section goes into effect, an application therefor, with sufficient and satisfactory evidence that he was, on such date, lawfully engaged in this state in treating the sick, and is of good moral character, and upon the payment of a registration fee of five dollars." The board has ruled—and the attorney-general has upheld the ruling—that chiropractors are the only persons eligible for registration under this provision, since they were the only persons who though "not registered or licensed in the state of Wisconsin to treat the sick—were lawfully engaged in this state in treating the sick." The legality of their practice is attested by a legislative enactment of 1915 (Revised Statutes of 1923), section 147.07(3) which says: "reputable practitioners of chiropractic may practice their profession in this state, if they do not hold themselves out as registered or licensed and conspicuously display in the places where they practice a sign containing in large and legible type—'not registered or licensed in Wisconsin.'" This statute was repealed by the basic science law.

The occasion for the confirmation by the attorney-general of the board's ruling on this point was the insistence of certain x-ray specialists and various irregular cults that they were entitled under the provisions of the law to registration, without examination, as prior practitioners. In all 668 chiropractors have been thus registered on the basis of previous practice. Chiropractors now seeking to practice in Wisconsin (after February 1, 1925), must pass the basic science examinations before they can be licensed by the board of examiners in chiropractic.

Basic Legislation In Connecticut*

BY ROBERT LEE ROWLEY, M.D.
Secretary, Connecticut Medical Examining Board
Hartford, Conn.

In the fall of nineteen hundred twenty-three the curtain was raised on a drama that was being enacted in Connecticut. That drama proved to be a tragedy and attracted almost nation-wide attention to our little state. It led educators far and wide, and members of our own profession to shudder at the thought of what was being revealed. Connecticut on that occasion came out of its shell of seclusion and stood with bowed head in the limelight of public gaze.

The story of what had been going on has been so completely told in the Medical Journal and elsewhere that it hardly need be repeated here. You will recall the investigation started by the public press in the "Home Town" of one of the diploma mills, and how the emissary came and told our then governor of some of the startling discoveries made, and the prompt action taken by the governor to initiate a thorough investigation through a special grand jury. To those in close touch with matters pertaining to medical licensure in our state, the revelations, while abhorrent, came with a shock that was a bit muffled, for there had been indications—noted by some—that all was not

*Presented before the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, Chicago, February, 1926.

well, and when this was brought to the attention of the State Medical Society four of its members were delegated to lay the situation as it then appeared before the state authorities. That was done just about one year before any action or investigation on the part of the state was undertaken.

To the Council on Medical Education and Hospitals is due the credit for having been apparently the first to recognize the fact that Connecticut offered a haven to the graduates of low grade medical schools and that these graduates were coming in increasing numbers to one of the examining boards in our state where they seemed to experience little if any difficulty in meeting the requirements that enabled them to obtain licenses.

By repeatedly calling attention to these observations through the columns of the Medical Journal the Council finally succeeded in awakening some of us in Connecticut to the belief that we were confronted with a situation that should receive attention in the interests of the public health. The Council is deserving of commendation, not from Connecticut alone but from the country as a whole, for having adopted the policy of giving publicity to the information it possessed bearing upon this situation and that seemed to call for some satisfactory explanation to justify its continued existence. This action on the part of the Council furnishes but another evidence of its splendid service in behalf of public welfare.

The investigation in Connecticut, carried on by the grand jury, under the leadership of one of the state's foremost attorneys, Mr. Holden, resulted in the cancellation of about 168 licenses to practice. Nearly three-quarters of the persons holding those licenses resided outside of Connecticut. Under the legal provisions allowed, appeals were made in about sixty cases against the decision for cancellation of licenses. These cases are still in the courts, and, pending final decision on the appeals those persons may continue to practice, according to a ruling of the attorney general. At the session of the state legislature a year ago, bills were introduced for the restoration of licenses in about fifty of the cases in which the licenses had been ordered to be cancelled by the grand jury. All of those bills were defeated and not passed.

PUBLIC AROUSED

Public interest in medicine and in the healing art in general had been so awakened by the disclosures made by the grand jury and the unusual publicity given in the daily press and elsewhere that business men and women were made to realize the economic aspect of the matter. Then it was that the State Chamber of Commerce took hold of the situation and for several months was engaged in a tremendously active state-wide campaign for public education on behalf of medical legislation that would better protect the people. Many of the most able men in the state devoted themselves most earnestly over a period of several months to the work of preparation of data and the gathering of facts for consideration when a new medical practice bill should be written. That material was of great assistance to the state chamber of commerce which, with most careful study, prepared a bill that became the ground work of the bill that was finally approved and presented to the legislature by the grand jury.

The grand jury bill, so-called, contained the provision for appointment by the governor, with confirmation of the senate, of a lay board, which was to be given the power to decide all matters having to do with the issuance and revocation of licenses to practice in any branch of the healing art.

The lay board was to be empowered to employ

THE FEDERATION OF STATE MEDICAL BOARDS OF THE UNITED STATES

Office of the Secretary-Treasurer
Des Moines, Iowa

March 17, 1926.

Mr. J. G. Crownhart, Executive Secretary,
558 Jefferson St., Milwaukee, Wis.

My dear Mr. Crownhart:

Your letter of the 8th instant is received.

I see no objection to your publishing the papers read by Doctor Rowley of Connecticut and Professor Guyer, at the last Congress. I presume that these papers will be published in either the April or May number of the Federation Bulletin. Both of these papers present the gospel, and the wider the distribution it has the better it is for the cause of public health.

I presume you have copies of the papers, otherwise I should be glad to send them to you.

With kindest regards, I am,

Sincerely yours,

Walter L. Bierring,
Secretary.

skilled assistance whenever and wherever its need was felt. With so many different schools of medicine and cults already having state recognition, and each with its own examining board—obviously with its own standard of proficiency—it was felt that the only solution rested in establishing a lay board that would set up standards to be met by all applicants for a license to practice. Those standards related to moral fitness, general education and education in the basic sciences. It was felt that such a board would so function that the six examining boards then existing could safely be dispensed with and that the public health and general welfare of the citizens of the state would not suffer as a consequence.

Of the many excellent features of the so-called grand jury bill, perhaps the most important and fundamental was the one that provided for one examining board with one standard for all applicants for licensure to practice in any branch of the healing art. The fairness of purpose of the sponsors of that bill is illustrated in the following quotation from the bill: "The examination shall be so conducted as not to discriminate against the particular views of any bona fide organization, sect or school, as to any remedies or treatment or any system of therapeutics."

Notwithstanding the great interest that had been awakened and the fact that influential and representative citizens and organizations, both commercial and social, lent their active support for the passage of the grand jury bill, the measure was defeated; consequently, instead of the six examining boards being replaced by one board, we now have in Connecticut, seven examining boards that are concerned with the issuance of licenses to practice in the healing art. At first glance this seems to border on absurdity but, as a matter of fact, an important step in the right direction has been taken by the state for the protection of its citizens in the requirement of a minimum standard of general education and of education in the basic sciences.

STATE BOARD OF HEALING ARTS

The legislative committee before which the grand jury bill was heard prepared and later in the session presented a substitute bill which, with some modifications, was enacted into law, and thus it was that the State Board of Healing Arts came into being on July 1, 1925.

Under the terms of this law the governor appoints the members of the board, three in number, one of whom is to serve for two years, one for four years and one for six years. No one can be appointed to the board who has received a degree in any of the healing arts, or who is a trustee, director, officer or employee of any hospital.

The definition of "practicing the healing art" is given in the law as follows: "For the purposes of this act the practice of the healing art shall be understood to be the practice of medicine, osteopathy, chiropractic and naturopathy as defined in chapters 148, 149 and 150 of the General Statutes, Chapter 245 of the Public Acts of 1923 and all amendments thereto."

The new law provides that every person desiring "to take an examination" to be admitted to practice any branch of the healing art, must show by written examination by this board that he has a comprehensive knowledge of anatomy, physiology, hygiene, pathology and diagnosis. To be admitted to the examinations he must satisfy the board that he is a person of good moral character and that he was a graduate of a high school or possessed equivalent educational qualifications before he began the study of the healing art. This requirement in preliminary education seems eminently fair, and at the same time the minimum that the state should demand of those who can be expected to have acquired a comprehensive knowledge of the basic sciences. If this preliminary educational requirement presents an insurmountable obstacle for the graduates of some schools of healing it will undoubtedly serve as a measure of protection to the undiscriminating portion of the public.

The state can rest assured that the Board of Healing Arts in accepting evidence of a high school education or its equivalent will be clearly informed not only as to the character and standing of the school but as well the studies pursued and amount of credits earned and received by each applicant. Success in achieving a purpose through legislative enactment depends, of course, upon the ability, earnestness of purpose and fairmindedness of those who are to administer the law.

Any mental unrest that may have been felt through realization of this fact must have been at once dispelled when the governor announced the names of his appointees to the new board. To discover three men better qualified for this important service would indeed be a most difficult task. I

should like to ask your indulgence while I present a very brief reference to the personnel of the board by saying that one of its members has been for several years professor of philosophy at Yale, having as a background for this work a very wide experience in the field of education; one of the members is a lawyer of distinction, for a number of years a judge of a court of probate, and a few years ago nominee for the office of governor of the state; another member is one of the chief executives of a large and prosperous manufacturing company, a man whose rise in the business world is attributable to his own merits and accomplishments and of whom it can be distinctly said he is of the public spirited type. Each one of these men commands the very highest respect and confidence of the people and each is a former member of the state legislature. Connecticut is fortunate indeed in obtaining the services of such men in this important work.

When there was proposed and created the rather novel situation of a lay board to carry on the duties assigned to it, many were heard to ask how any board of laymen could be expected to examine satisfactorily applicants in the technical subjects named in the new law. The answer is that they are doing it and doing it well.

That board has sought assistance from a number of sources including the members of all of the other examining boards in the state. Questions with answers have been supplied by members of different schools and cults. And from other sources information has been eagerly sought and obtained.

The board conceives its intended function as a board of elimination, a coarse sieve through which applicants for a license to practice the healing art must first pass with consequent elimination of the obviously unfit.

There has been hardly enough time for the board to get a good start with its work but already there is evidence of the splendid quality of its service and of its ability to judge correctly of the qualification of applicants. This is illustrated by the fact that those applicants concerning whom the board of healing arts had some reservation when it certified them to the Connecticut medical examining board were the same applicants who later failed to meet the examination requirements before the latter board.

In speaking of certifying applicants may I say that the new law provides that a certificate from the state board of healing arts is prerequisite to examination by the Connecticut medical examining board, the Connecticut homeopathic medical examining board, the Connecticut eclectic medical examining board, the state board of osteopathic registration and examination, the state board of chiropractic examiners or the state board of naturopathic examiners.

It is too early to say whether or not any significance attaches to the fact that thus far, with I believe one exception, all of the applicants before the board of healing arts have been graduates of regular schools of medicine. One would have supposed that a number of graduates of other schools would have appeared for examination before this time. It may be that the high school education requirement is a little too much of a hurdle for some. We will know more about this a little later and I have a feeling that other reasons will appear.

There may be some features about this new law that will need patching when the state legislature meets a year from now, and the board's experience of a year and a half with the new law will no doubt make clear just what changes should be made.

This as yet new feature in legislation establishing a lay board for the examination of graduates in medicine and others who may apply for a license to practice in any branch of the healing art sets in motion an experiment which is being observed, I imagine, rather broadly but nowhere with keener interest than in Connecticut. From the manner in which the work is being carried on, there is a real basis for a feeling of satisfaction, and the state should with confidence anticipate its future course to success.

PARALLEL IN WISCONSIN

As far as I am informed, the present licensure situation in Connecticut has its closest parallel in Wisconsin. I have notices that the legislature in the state of Washington recently passed a bill that would have set up a somewhat similar condition but the governor vetoed the bill.

Connecticut now seems to have started on a course that will enable her to prevent some of the scandalous conditions she has had and it is earnestly hoped that she will soon regain her prestige and will merit the confidence of her sister states as relates to regulation of the practice of medicine and of the healing arts in general.

THE JOURNAL BOOK SHELF

The Crippled Hand and Arm. A monograph on the various types of deformities of the hand and arm as a result from abnormal development, injuries and disease, for the use of the practitioner and surgeon. By Carl Beck, M.D. Illustrations 302. J. B. Lippincott Company, Philadelphia and London, 1925.

Practical Medicine Series. Volume V on Gynecology and Obstetrics. Gynecology edited by Thomas J. Watkins, M.D., F.A.C.S., Prof. of Gynecology, Northwestern University Medical School, Chicago. Obstetrics edited by Joseph B. DeLee, A.M., M.D., Prof. of Obstetrics, Northwestern University Medical School, Chicago. The Year Book Publishers, Chicago. Price per volume, $2.00; price of series of eight volumes, $15.00.

Physiotherapy, Theory and Clinical Application. By Harry Eaton Stewart, M.D., President-elect American Academy of Physiotherapy; Attending Specialist in Physiotherapy, U. S. Marine Hospital, N. Y. Price $7.50. Paul B. Hoeber, Inc., New York.

Methods and Problems of Medical Education. Third series Division of Medical Education, The Rockefeller Foundation, New York, 1925. Under direction of Dr. Richard M. Pearce, 61 Broadway, New York City, N. Y., U. S. A.

A Textbook of Medical Diagnosis. By James M. Anders, M.D., Prof. of Medicine, Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania; and L. Napoleon Boston, M.D., Associate professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Third edition, entirely reset. Octavo of 1422 pages, 555 illustrations. Cloth, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1925.

Old and New Viewpoints in Psychology. By Knight Dunlap, Prof. of Experimental Psychology in the Johns Hopkins University, Baltimore; formerly President of American Psychological Association. Price, $1.50. C. V. Mosby Company, St. Louis, 1925.

The Principles and Practice of Obstetrics. By Joseph B. DeLee. W. B. Saunders Company, Philadelphia and London.

Feeding and the Nutritional Disorders in Infancy and Childhood. By Julius H. Hess, M.D., Prof. and head of the department of Pediatrics, Univ. of Illinois College of Medicine; chief of Pediatric Staff, Cook County Hospital. Illustrated with forty-two engravings in the text and one full-page colored plate. Fourth revised and enlarged edition. Price, $4.50, net. F. A. Davis Company, Philadelphia, 1925.

Ophthalmic Year Book, The. By Edward Jackson and William H. Crisp. Contains bibliographies, digests and indexes of the literature of ophthalmology for year 1923. Volume XX. Geo. Banta Publishing Company, 1924, Menasha, Wis.

Manual of Obstetrics. By John Cook Hirst, M.D., Associate in Gynecology and Obstetrics, Graduate School of Medicine, University of Pennsylvania; Associate in Obstetrics, School of Medicine, University of Pennsylvania. Second Edition, entirely reset. 12mo of 551 pages with 229 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $4.50, net.

Manual for Diabetics. By Gladys L. Boyd, M.D., Director of Diabetic Clinic and Clinical Assistant, Hospital for Sick Children, Toronto; Research Fellow in Pediatrics, University of Toronto; Assistant Physician to Newborn Clinic, Toronto General Hospital; Pediatrist-in-Chief, Woman's College Hospital, Toronto; Fellow of Canadian Society for the Study of Diseases of Children. And Marion D. Stalsmith, Dietitian to the Diabetic Clinic, Hospital for Sick Children, Toronto. Funk & Wagnals Company, New York and London, 1925.

Medical Clinics of North America. Volume VIII, Number IV, (Mayo Clinic Number, January, 1925). Octavo of 374 pages with 66 illustrations. Paper, $12.00; cloth, $16.00. W. B. Saunders Company, Philadelphia and London.

Surgical Clinics of North America. Clinic of Frank H. Lahey, M.D., Boston. Volume IV, number VI, 166 pages with 43 illustrations, and complete index to volume IV. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

The Technic of Local Anesthesia. By Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., F.A.C.S., Prof. of Surgery in the University of Kansas. Third edition, with 140 illustrations. Price, $5.50. C. V. Mosby Company, St. Louis, 1925.

Medical and Surgical Report of the Roosevelt Hospital, New York. Second series, 1925, based on the work of the years 1915-1924 inclusive. Price, $5.00. Paul B. Hoeber, Inc., New York City.

The Medical Clinics of North America. Volume VIII. Number V, March, 1925 (Boston Number). Octavo of 247 pages and 21 illustrations. Per clinic year (July 1924, to May, 1925): Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia, and London.

The Normal Diet. By W. D. Sansum, M.S., M.D., Director of the Potter Metabolic Clinic Department of Metabolism, Santa Barbara Cottage Hospital, Santa Barbara, Calif. A simple statement of the fundamental principles of diet for the mutual use of physicians and patients. Illustrated. Price, $1.50. C. V. Mosby Company, St. Louis, 1925.

Surgical Clinics of North America. Volume V, Number 1. Pages, 294, with 142 illustrations. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

Pediatrics. By Isaac A. Abt, M.D., Prof. of Diseases of Children, Northwestern University Medical School. Chicago; attending physician, Sarah Morris Hospital for Children of Michael Reese Hospital, Chicago. Volume VI containing 736 pages with 150 illustrations. Cloth, $10.00. W. B. Saunders Company, Philadelphia and London.

Collected Papers of the Mayo Clinic and Mayo Foundation. Vol. XVI, 1924. Edited by Mrs. M. H. Mellish. W. B. Saunders Company, Publishers, Philadelphia and London.

An Intermediate Textbook of Physiological Chemistry, with Experiments, Third Edition. By C. J. V. Pettibone, Ph.D. The C. V. Mosby Company, Publishers, St. Louis, 1925.

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Medical Formulary. By E. Quin Thornton, M.D., Assistant Professor of Materia Medica, Jefferson Medical College, Philadelphia. Revised—1925, 12th Edition. Lea & Febiger, Publishers, Philadelphia.

The Medical Clinics of North America. Volume VIII, Number 2, Chicago Number, September, 1924. W. B. Saunders Company, Publishers, Philadelphia and London.

Students' Guide to Operative Surgery. By Alfred T. Bazin, D.S.O., M.D., Assistant Professor in Surgery. Renouf Publishing Company, Montreal, 1923.

Pygmalion or the Doctor of the Future. By R. M. Wilson, M.D., Ch.B. E. P. Dutton & Company, Publishers, New York.

The Faith, the Falsity and the Failure of Christian Science. By Woodbridge Riley, Ph.D., Member of the American Psychological Association; Lecturer at the Sorbonne, 1920; Author of "American Thought from Puritanism to Pragmatism;" Frederick W. Peabody, LL.B., Member of the Massachusetts Bar; Author of "The Religio-Medical Masquerade;" Charles E. Humiston, M.D., Sc.D., Prof. of Surgery, College of Medicine, University of Illinois. Fleming H. Revell Company, Chicago.

BOOKS RECEIVED FOR REVIEW

Proceedings of the Inter-State Post Graduate Medical Association of North America, St. Paul, Minn., October 12-16, 1925. Edited for the Association by Edwin Henes, Jr., M.D. Cloth, 440 pages, $6.90 net.

Facts On the Heart. By Richard C. Cabot, M.D., Prof. of Medicine and Social Ethics, Harvard University. Octavo of 781 pages with 163 illustrations. Cloth, $7.50 net. W. B. Saunders Company, Philadelphia and London, 1926.

International Clinics. Volume I. Thirty-sixth series, March, 1926. Illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. J. B. Lippincott Company, Philadelphia and London.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

Symptoms of Visceral Disease. By Francis Marion Pottenger, A.M., M.D., LL.D., F.A.C.P., Medical Director, Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, Calif. A study of the vegetative nervous system in its relationship to clinical medicine. Third edition with eighty-six text illustrations and ten color plates. Price, $6.50. C. V. Mosby Company, St. Louis, 1925.

This book does not need any recommendation. The very difficult subject is handled in an excellent manner and it is a pleasure to read this book which gives an enormous amount of food for thought. The anatomy and pharmacological actions, the functions and clinical symptoms have been handled in a clear, easily understood way. It is not only a composium of older knowledge about the system but discusses also the newer problems of the vegetative system. It is naturally impossible that a book of this kind where daily newer publications arise contains the newest opinion about the vegetative nervous system. Also the newest point in view is mentioned and that is electrolytic significance for the neuron theory. This book would be a valuable addition to every scientific library.—H. H. R.

Development of Our Knowledge of Tuberculosis. By Lawrence F. Flick, M.D., LL.D., Co-founder of the Rush Hospital for Diseases of the Chest; Organizer of the Pennsylvania Society for the Prevention of Tuberculosis. Price, $7.50. Lawrence F. Flick, M.D., 738 Pine St., Philadelphia, 1925.

This volume is an encyclopedic compilation of the historical background of our knowledge of tuberculosis. The author has resorted to voluminous quotations from the masters of medicine, in the main to good purpose. On other occasions such materials might be briefed to advantage. Judgment will differ as to the propriety of allotting so much space to Morton, great though his contribution to Phthisiology was. To a student of this subject on the other hand it would seem a folly to attempt to abstract Laennec's "De l'auscultation Mediate." Various contributions assume varying values to different students. Dr. Flick has done a wonderfully fine piece of historical research in bringing the many steps in the advance of our information into a single volume. Obviously as in the cited case of Laennec's epochal work, justice cannot be done in any abbreviated form of the original. The author has no intention that this volume shall serve as a final authority but rather as a reference. To the inquisitive the original texts or excellent translations are always available; but in the English language no such comprehensive volume exists on the subject of this work of Flick. Predöhl alone compares in the European literature.—W. S. M.

Massage and Therapeutic Exercise. By Mary McMillan, supervisor of Aids in Physiotherapy, Medical Corps, U. S. A., 1919-20. Second edition, reset. Pages, 331, with 17 illustrations. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia and London.

Miss McMillan's discussion of Massage and Therapeutic Exercise is clearly written, and quite sane in its content. The book is primarily intended for students of Physical Education, and for nurses and Physiotherapy Aides, and for this class of readers is well adapted. Incidentally, it gives some good points for the medical practitioner. A large number of disorders to which physiotherapy is applicable is discussed, although somewhat briefly. Exercise as a therapeutic measure is too often neglected by the physician, or at least inadequately prescribed. Miss McMillan's specific description of exercises will do much to help in many fundamental disorders, physical defects, etc. The second edition of the book is somewhat enlarged and rewritten.—J. C. E.

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Inter-State Post Graduate Medical Association of North America

PUBLISHED PROCEEDINGS

St. Paul, 1925, Assembly

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Next Assembly of the "Inter-State" - Cleveland, Ohio, October 18-22, 1926

PLAN NOW TO ATTEND

Inter-State Post Graduate Medical Association of North America, St. Paul Proceedings, Oct., 1925. The Schueppert Printing Company, Milwaukee, Wisconsin.

This volume, of four hundred and forty-four pages, edited by Edwin Henes, Jr., was the first publication of the proceedings of the former Tri-State Society. It is a complete record of the proceedings of the St. Paul meeting held in October, 1925, and includes all the clinical and didactic presentations occurring during the four day session. The book is very well put together and, because of the clearness of its print, is delightfully easy to read.

Clinics, papers and addresses of fifty-six authorities are presented in the order of their delivery at this session. The subject matter is only fairly well balanced, about twenty-five essayists presenting surgical subjects and the medical speakers confining themselves almost exclusively to the discussion of heart disease and hypertension. Space does not permit the specific mention of fifteen leading articles which are well worth perusal while several others exhibit considerable verbosity.

This volume should be of great assistance to the men who attended this meeting, for it is frankly impossible to adequately grasp all the material crowded into such a short session. It is to be regretted that the proceedings of former meetings were not published, but careful editing of each succeeding volume will eliminate a large portion of uninstructive rhetoric.—W. J. E.

PUBLIC HEALTH NOTES

Can the city members of a county board vote on the question of employing a county nurse? The question was answered affirmatively, on the ground that the money for the expenses of the county nurse is levied on the assessed valuation of all the property within the county, the city included.

Information was given to a physician concerning the reasons why quarantine and other measures exist in Wisconsin for such diseases as typhus, yellow fever, plague, and Asiatic cholera.

"The regulations concerning the prevention and control of these diseases," it was explained, "are quite obsolete but the board thought it best to carry these regulations for fear we might have an outbreak where some method of restriction and control would be necessary."

It was explained further that regulations for malaria exist because, although practically unknown in Wisconsin, there are occasionally imported cases. There are also regulations on leprosy because there is occasionally an isolated case.

It is not permissible for a person having smallpox to appear in a public hall connected with an apartment house nor to use a public toilet.

A nurse who is employed in a quarantined home and working under the direction of a licensed physician can leave the home without obtaining written permission from the health officer.

A complainant of non-reporting of communicable diseases was informed that under the law any citizen who knows or suspects the existence of such cases is required to report all the facts to the health officer without delay.

Inquiry was made whether admission to school should be granted to a child pronounced tuberculous in a clinic but in whom X-ray pictures showed lesions nearly healed.

"It is rather difficult to advise in this case," said the answer. "If the child is losing weight, is coughing a good deal and has other clinical symptoms of tuberculosis such as afternoon temperature, etc., we advise for the good of the child that it be excluded from school and the parents instructed how to take care of the child in the matter of providing proper food, rest, etc. It is possible that this is an arrested case and that the X-ray picture has been correctly interpreted."

Further light on the jurisdiction of chiropractors and others who treat the sick by certain methods was given in answer to inquiry. This was the case of a chiropractor who asked the local health officer for permission to enter quarantined homes. The health officer was advised that this is not allowed under the law. "The legislature of 1925 refused to give chiropractors the title of doctor," it was explained, "and also refused to authorize chiropractors and naprapaths to attend cases of communicable and contagious diseases. Supreme courts of some states have held that a physician failing to use diphtheria antitoxin in cases of diphtheria is liable for damages for malpractice. The law specifically prohibits a chiropractor from using medicines, drugs, serums, etc. Therefore if he were to attend a case of diphtheria he could not use antitoxin, which supreme courts of some states have held as a proper remedy and have assessed damages against physicians who failed to use this curative measure."

The Wisconsin Medical Journal

Volume XXV | Milwaukee, May, 1926 | Number 5

The Physical Basis of the Physiological Action of X-Rays*

BY H. N. BEETS

Physicist at the Michael Reese Hospital
Chicago

Cells which have been exposed to x-rays when studied under the microscope show certain characteristics which distinguish them from cells not so treated. The exact nature of these post-radiation characteristics is a subject for the pathologist, the mechanism of the cell change is a thing to be determined by the physiologist, but the basic action of the x-ray that initiates the ensuing cell changes is the problem of the physicist.

To understand successfully the changes brought about in tissues by x-rays or by the radiations of radium we must know the underlying physical phenomena. If we understand the mechanism by which radiation acts on inorganic matter we will be able to glimpse the mode of action on living tissue and thus get a clearer understanding of the physiological results of radiation and be able to apply radiation therapeutically with some logical reason.

Recent researches in physics on the constitution and structure of matter, the nature of light, and the action of radiant energy on matter have given us a great deal of information pertinent to this topic. I would like to discuss briefly the results of these researches and their bearing on the subject of radiation therapy.

CONSTITUTION AND STRUCTURE OF MATTER

The atom of Dalton, for a long time supposed to be the smallest particle of matter and therefore indivisible, has been found to be no simple thing. Rutherford of England, Millikan of this country, Bohr of Denmark, and others by brilliant experimental and theoretical work have opened up the very heart of the atom. They have shown that every atom consists essentially of two parts, a nucleus and a surrounding electron atmosphere. We shall here content ourselves with a brief study of one of the elements, viz., carbon.

Carbon is an element that occurs widely in nature and is the most important element in the chemistry of cells. The carbon nucleus, extremely small in comparison with the size of the atom, composes nevertheless the mass of the atom. The nucleus is the thing that makes carbon carbon and not silicon, or oxygen, or some other element. This nucleus carries at all times six unit charges of positive electricity. It is a very stable thing. Men have tried to disrupt nuclei, but so far with little success. It takes vast quantities of energy to accomplish this, certainly much greater than any that can be used in therapy. Therefore it is not important for our purposes to study the nucleus.

About this nucleus are six electrons. They are distributed about it and travel around it in elliptical orbits very much as the planets in our solar system are distributed about and revolve around the sun. Each carries a unit charge of negative electricity. Since opposite kinds of electricity neutralize each other the atom as a whole is electrically neutral. If in some maner the atom loses or gains one or more electrons the system is out of balance and the stage is set for a fight of the atom to regain its neutrality, resulting either in a return to its original condition or the formation of a new compound depending on the nature of its environment.

The chemical properties of the atom reside with the electrons, specifically with the electrons farthest out from the nucleus. These are known as the valence electrons. It is comparatively easy to disturb these outer electrons, to change the shape of their orbit, to bring them to a greater distance from the nucleus, or to remove them altogether from the atom, that is, to ionize the atom.

We are not so much interested in the carbon atom as such, as in the carbon molecule, and in molecules of which carbon is a constituent. A molecule is an organization of atoms united by what are ordinarily called chemical bonds. Briefly, this chemical bond is at all times and in all molecules merely a pair of valence electrons held jointly by two atoms[1]. If this bond is broken, which can be accomplished by x-rays, the molecule is disrupted. Whether or not a chemical change will result depends again on the nature of the environment.

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A block of pure carbon could be irradiated for hours and at the end of that time still be carbon because there is no agent acting to prevent the recombination of these electron pairs with carbon atoms to form carbon molecules as fast as the molecules may be disrupted. However, if a solution of carbon dioxide in water is radiated under suitable conditions formaldehyde and hydrogen peroxide are formed. This reaction is reversible and does not proceed very far, but, if some agent is introduced to remove the hydrogen peroxide as it is formed the production of formaldehyde and peroxide continues[2]. In the case of cells there are chemicals present which can act as agents to prevent this recombination of atoms into the original molecules and we do observe changes following radiation which last for longer or shorter periods of time.

THE NATURE OF LIGHT

What is the nature of x-ray light that it should be able to start chemical changes. The work of Planck, Einstein, and A. H. Compton has given us new information and verification as to the nature of light in what is known as the quantum theory. In this theory light rays, x-rays, gamma rays "consist of streams of minute, discrete particles shot with tremendous speed from the source of the light, and proceeding in definite directions. These particles, or quanta as they are called, do not have the form of a wave but are concentrated bundles of energy. Instead of distinguishing a ray by its wave length, we can specify the momentum or energy carried by each particle. A quantum of hard x-rays has a relatively large momentum, while a soft x-ray quantum has a small momentum. It has been calculated that the mass of a hard gamma ray quantum is about the same as that of an electron, which is our smallest unit of ordinary matter. The mass of an ordinary x-ray quantum is about $\frac{1}{20}$ as great, and that of a light quantum about $\frac{1}{200,000}$ as great. That means that it would take as many x-ray quanta to weight as much as a mosquito as there are drops of water in all the oceans. X-ray may be thought of then as streams of little bullets or arrows shot with tremendous speed from the targets of our tubes."[3]

ACTION OF RADIANT ENERGY ON MATTER

We can now visualize (even photograph in particular cases) what happens when an x-ray quantum strikes a molecule. Unless it strikes one of the electrons nothing happens. "If it strikes an electron the collision will be similar to that of a golf ball striking a perfectly elastic football. The football will recoil and the golf ball will bounce off with less momentum than it had when it struck."[3] If, further, the football is tied to a stake with a rubber band it will not move to a greater distance from the stake than the band permits unless the golf ball hits it with force enough to snap the band. The electrical attraction betwen the nucleus and the electrons is analogous to the rubber band between the football and the stake to which it is tied. The x-ray quanta by reason of their momentum and direction can break electrons away from the nuclei; can break the chemical bonds holding atoms in molecular combination and thus make possible new combinations, or change the velocity or point of termination of any chemical reactions that may be taking place.

APPLICATIONS TO EFFECT OF RADIATION ON CELLS

In the cell the physical-chemical processes of anabolism, katabolism, absorption, secretion, and excretion are continuously going on. Here the x-ray quanta by breaking bonds may accelerate the velocity of all the normal processes of the cell at the same rate, but it is more likely that they will be accelerated at different rates and the normal cell equilibrium disturbed. For example, it is a common occurrence when the neck is radiated that an edema of the glands of the neck is produced. Whether the edema is interstitial or cellular it is plain that the balance formerly existing between absorption and excretion has been temporarily lost.

An accelerated katabolic rate with no compensating acceleration of the anabolic rate results in degeneration, which could be interpreted as a destructive action of the x-ray. The reverse will result in an increase in the size of the cell until cell division or mitosis occurs, which could be interpreted as a stimulating action of the x-ray.

It has been shown by Bergonne and others that cells undergoing mitosis and young cells are most readily influenced by radiation.[4] It is at this period that the natural physical and chemical activities are at a maximum. An acceleration of some of the activities with an accompanying apparent or actual inhibition of others will disturb or destroy the existing equilibrium in the cell. The result may be an extraordinary increase in the rate of reproduction, i. e., stimulation, or an inhibition of the

reproductive rate, i. e., ultimate disappearance of the cells or destruction.

I have attempted to show why and how x-rays initiate cell changes. The nature and progress of these changes is not in the field of physics, and it is here that the physicist must leave the problem to the physiologist.

For discussion see Page 233

BIBLIOGRAPHY

1. G. N. Lewis: Valence and the Structure of Atoms and Molecules, 1923, p. 78.
2. W. T. Bovie: Harvey Lecture, 1923, p. 91.
3. A. H. Compton, Radiology 3,481 et seq., 1924.
4. Knox: Action of Radiations on Tissues, Radiotherapeutics, London, 1917.

The Biological Effects of Roentgen and Gamma Rays*

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The discovery of the x-ray by Roentgen in 1895 and that of the radio-activity of uranium salts soon afterwards by Becquerel led to studies which have profoundly affected some of the more fundamental theories of physics and chemistry. Investigation of the effects of x-rays and of radio-activity on living organisms has had as yet no such deep effect on speculative biology but it has brought to light many interesting phenomena and has added in the field of medicine valuable aids to diagnosis and therapy.

Dr. Beets has just outlined in a clear and interesting manner, some of the newer conceptions of the structure of the atom and of the nature of radiant energy which have come from the study of radio-active substances. The atom, formerly looked upon as the ultimate indivisible unit of matter, is now looked upon as a sort of solar system in which small charges of negative electricity, electrons, play the part of planets and a minute nucleus with a charge of positive electricity corresponding to the sum of the charges on the electrons plays the part of the sun. An atom of a given chemical element has normally a specific number of electrons and this number represents the number of the element in the periodic system. An atom may, however, temporarily lose one or more electrons or gain an extra one or more thus becoming positively or negatively charged, ionized. A molecule is usually defined as the smallest portion of any substance which can exist by itself and to which can be attributed all the chemical properties of that substance. A molecule may consist of one or more atoms. When it is composed of two or more atoms it is now believed that these are held together by electro-static charges, the component atoms preceding union being ionized. A gas is composed of molecules in free movement, a fluid of molecules more restricted in movement, a solid of molecules still further restricted in movement. The energy which keeps these molecules in movement is called heat. Colloidal particles are groups of molecules held together probably by electro-static forces. These particles, which vary greatly in size, have considerable freedom of movement. Crystals are composed of molecules held in a definite relatively fixed position by forces probably also electrostatic in nature.

The most characteristic feature of matter whether in the form of electrons, ions, atoms, molecules, or larger aggregates is its power of locomotion or change of position relative to other masses of matter. The ether which is ordinarily assumed to fill all space and in which matter is suspended, appears not to undergo locomotion. Its most characteristic feature appears to be to transmit the forces which initiate, direct, or check the movements of matter.

Of these forces the most important are gravity and electricity and magnetism. With gravity we are not at present concerned. Matter we have seen is now conceived as being composed of electrically charged particles. From an electrically charged particle lines of force radiate out into the ether. Thus, although an electron may be looked upon as a unit of electricity its field of force is much more extensive than its bulk.

An electric current consists essentially of a stream of electrons in motion. The cathode rays in an x-ray bulb consist of a stream of electrons travelling at high velocity. The beta rays of radium likewise consist of electrons travelling at high velocity. The alpha rays of radium on the other hand are believed to be composed of positively charged helium ions.

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When electrons are moving in a given direction electric lines of force radiate out into the ether from the line of direction of movement and magnetic lines of force are produced which encircle the current.

When an electric current is started, stopped, altered, or reversed in direction or is quickly increased or decreased in speed electro-magnetic waves are set up in the ether. These waves in the ether have a definite velocity of approximately 300,000 kilometers, 186,000 miles, per second. Since the speed of these waves in space is uniform the wave length, distance between crests, is inversely proportional to the frequency of their production. Thus in wireless communication, if an oscillating current is reversed in direction 10,000 times per second the length of the electro-magnetic waves sent out from the antennae is 30 kilometers, if it is reversed in direction 10,000,000 times per second the length of the electro-magnetic waves is 30 meters. The energy thus sent out from the broadcasting station in turn gives rise to oscillating electric currents in the resonator of the receiving station. The movement of the electrons in the antennae of the transmitting station thus gives rise to a movement of electrons of corresponding frequency of oscillation in the resonator of the receiving station if the latter is properly tuned.

One often hears the alternations of current direction used in wireless communications referred to as of high frequency. The alternations are of high frequency compared with those of an ordinary alternating current generator but the wave frequency of the electro-magnetic waves used in wireless communication are of very low frequency compared with those of the solar spectrum and these in turn are of low frequency compared with those used in x-ray and radium diagnosis and therapy. The frequency per second of the waves of wireless communication is counted in thousands or millions.

TABLE 1. RANGE OF WAVE LENGTH AND WAV E FREQUENCY OF ELECTRO-MAGNETIC WAVES

Velocity in Space 300,000 Kilometers (186,000 miles) per sec.

Order of Magnitude	Type	Range Octaves	Longest Wave Length	Frequency per Sec.	Comparative Data
Supra terrestrial	Alternating Current Generator	15	1,000,000 K.M. 621,400 Mi.	0.3	1,000,000 K.M. = 2½ times distance to moon: 1/150 to sun.
to ordinary	Wireless	10	30 K.M. 19 mi.	10,000	Sound waves 20 to 30,000 per sec.
terrestrial	Shorter Hertzian	16½	30 M. 98 ft.	10 million	
Microscopic	Infra Red	8½	0.3 M.M. $\frac{1}{100}$ in.	1,000,000 million	$1{,}000{,}000^2$ equals number of seconds in 31,700 years.
Colloidal diameters 10,000 A. to 10 A.	Light	1	0.00075 M.M. 7,500 A. $\frac{30}{1{,}000{,}000}$ in.	400 million^2	Diameter R.B.C. = 0.00075 C.M.
Ultra microscopic diameters to 40 A.	Ultra Violet	5	0.0004 M.M. 4,000 A. $\frac{16}{1{,}000{,}000}$ in.	750 million^3	Cell nucleus photographed with 2,800 A.
Molecular diameters 10 A. or less	Very soft X-rays	6	100 A. $\frac{0.4}{1{,}000{,}000}$ in.	30,000 million^2	Radius of atom 1 A. = 1/100,000,000 C. M.
Atomic diameters 2 A ±	X and Y (gamma) Rays	5	1.5 A. $\frac{6}{1{,}000{,}000{,}000}$ in.	2 million^3	Radius of electron 1/50,000 that of atom.
	Y rays (gamma)	2½	0.06 A. $\frac{0.24}{1{,}000{,}000{,}000}$ in.	50 million^3	A million cubed = number of seconds in 1,000,000 × 31,700 years.
	Gap	4	0.01 A.	300 million^3	0.01 A. : 1 C.M. = 4 M.M. : circumf. earth.
	Cosmic Rays	1	0.00067 A.	4,500 million^3	
Diameter electron 0.00004 A.	Shortest Known Rays		0.0004 A.	7,500 million^3	.0004 A. : 1 C.M. = 0.16 M.M. : circumf. earth.

that of the waves of the solar spectrum in millions of millions, that of the x-rays and gamma rays in millions of millions of millions or billions of billions. See Table I.

The electro-magnetic waves used in wireless communication are received by apparatus tuned to receive waves of a definite length or frequency. The retina of the human eye represents a mechanism attuned to wave lengths about $\frac{1}{100,000,000}$ of the shortest waves ordinarily used in wireless communication. In round numbers the range of wave lengths affecting the human eye is from 7,500 to 4,000 angstroms (an angstrom is $\frac{1}{100,000,000}$ c.m.). The longer waves give rise to the sensation of red, the shorter to the sensation of violet. Electro-magnetic waves longer than the red rays of the visible spectrum arouse the sensation of heat in the skin. Waves shorter than the shortest visible violet light affect the tissues but are not directly perceived. The range of electro-magnetic waves to which our sense organs are directly atuned is therefore quite limited and extends but a little over one octave. An octave represents a range through which wave length is halved, wave frequency is doubled.

The molcules which compose the tissues of the body, however, furnish receiving and transmitting stations for a much greater range of wave lengths. The presence of receiving stations in a substance is indicated by the power of the substance to absorb the radiant energy which enters it. Electro-magnetic waves may be reflected from, transmitted through or absorbed by matter. Wave frequency and direction on the one hand, the physical state and chemical composition of the substance on the other hand are the chief factors involved.

The reflecting power of a surface varies for different substances and different wave lengths. A polished silver surface will reflect about 98 per cent of infra red rays, 82 per cent of blue rays, no observable amount of x-rays. X-rays are, however, reflected from the facets of crystals within certain crystalline bodies.

The transmission of electro-magnetic waves through a substance may be marked by refraction or by scattering.

Refraction is due to the fact that although all electro-magnetic waves travel at the same velocity in space in passing through matter their rates are slowed through contraction in wave length while wave frequency is maintained. Light waves travel faster in air than in water or glass. Refraction of x-rays similar to that of light rays has not been observed.

Scattering, on the other hand, is an important factor in the transmission of x-rays through substances. It may be compared to the passage of light waves through a fog. In case of the x-rays the amount of scattered radiation per unit mass is a constant independent of the chemical character of the substance. The scattered rays leave the body in all directions. The intensity of these rays with a direction parallel to the primary beam is almost twice that at right angles to it. The intensity of the scattered rays going in a forward direction is greater than that of rays taking a reverse direction. It is believed that from 40 to 50 percent of the biological effectiveness of highly penetrating rays is due to scattered rays. The simple inverse square law does not hold in calculating intensity of radiation.

ABSORPTION

The physical and chemical effects of radiant energy on matter and the biological effects on living organisms arise not from the rays that are reflected from or transmitted through a body but from those which are absorbed by the body. Both direct and scattered rays may be thus absorbed.

The absorption by matter of the energy of electro-magnetic waves gives rise to various physical and chemical changes. Of these that which has been most carefully studied is rise of temperature, which in turn is attributed to increased motion of the constituent elements. Although the infra red region of the spectrum is frequently spoken of as that of radiant heat the absorption of rays of the more distant regions of the spectrum also gives rise to increase of temperature and the rays of maximum intensity given off by very hot bodies are in the ultra-violet region. Much study is being given to the question as to what elementary constituents of an absorbing substance respond specifically to electro-magnetic waves of varying frequencies.

The electro-magnetic spectrum at present known (see Table I) extends over about 75 octaves and

has three regions of principal practical interest, (1) that of wireless communication, extending over a range of about 10 octaves, from wave lengths of 30 kilometers to wave lengths of 30 meters (neither of these limits are fixed); (2) the region of visible light, extending over about one octave, and the neighboring portions of the infra-red and ultra-violet regions of the spectrum and (3) the region of the x-rays and gamma rays used in medical diagnosis and therapy extending over a range of about 7½ octaves, from wave lengths of 1.5A to wave lengths of .01A.†

The tissues of the body do not appear to be at all attuned to the relatively long waves of the wireless region. Advantage is taken of this in diathermy. The frequency of oscillations of the current used in diathermy is comparable with that of those used in wireless communication. The current passed through the body in diathermy is comparable with that in the antennae of a broadcasting station. Electro-magnetic waves comparable in frequency are aroused. But the tissues respond by no specific chemical or physiological changes. The resistance of the tissues to the passage of the currents is manifest by increase of temperature and the resulting changes are due to heat, not to a specific response to a given wave length.

The wave lengths characteristic of the infra-red region of the spectrum are readily absorbed by the tissues. The absorption of these rays appears in the main to give rise to increase of molecular activity, and increase of heat. The molecular activity of the tissues on the other hand gives rise to heat which is radiated from the surface of the body by waves too long to affect the retina of the eye. Otherwise we should see a person in the dark. Various organic compounds show a specific activity in the infra-red region of the spectrum and give rise to characteristic absorption and emission bands.

The region of visible light and the neighboring parts of the infra-red and ultra-violet regions of the spectrum are those of greatest importance for life. The absorption of the rays of these regions by plants furnishes the bulk of the energy subsequently exhibited by both plants and animals. The organic molecular mechanisms which absorb these rays are in large part chemical synthesizers. It has only recently begun to be appreciated how important for the life of the higher animals and man the exposure of skin to ultra-violet light may be. Still newer and more astonishing is the information presented by Professor Steenbock at this meeting concerning the value of exposing food to ultra-violet light. Food thus exposed may prevent rickets in animals which otherwise would develop it. Such an exposure has an effect on the calcium metabolism of the animal eating the food thus exposed.

The ultra-violet light becomes increasingly easily absorbed by matter as the waves become shorter and a similar absorption is exhibited by the longer x-rays (very soft x-rays). Little is known of the mechanism of absorption of these rays or of their biological action.

As the x-rays become shorter and of higher frequency they tend to pass through the tissues more readily and to be proportionately less absorbed. The length of the shortest wave in an x-ray beam depends on the peak voltage of the current exciting the tube. A peak voltage of 20 kilovolts is necessary for a wave length as short as 0.6A, one of 40 kilovolts for a wave length of 0.3A, one of 60 kilovolts for a wave length of 0.2A, one of 120 kilovolts for a wave length of 0.1A, and one of 250 kilovolts for a wave length of 0.05A. The rays of that part of the beam which gives maximum intensity are always longer than that of minimum wave length. Thus with a tungsten target at 40 kilovolts the waves in the region of maximum intensity are about 0.43A long (minimum wave length 0.31A).

The x-rays and gamma rays absorbed by the tissues affect primarily those electrons of various atoms whose period of revolution about the central nucleus correspond in frequency with the wave frequency of the x-rays. An electron receiving one or more quanta of x-rays of the appropriate frequency jumps to an orbit of the atom further from the nucleus or entirely out of the atom. Those electrons which thus escape from the atoms form secondary cathode rays within the tissues. The speed of the electrons in these rays corresponds to the speed of the cathode rays in the tube used to produce the x-rays.

CAUSE OF BIOLOGIC EFFECT

To these high speed electrons within the tissues are attributed the major portion of the direct biological effects of radiation.

These electrons may:

a. Interfere with the electrostatic tension of the colloid particles of the cell.

b. Alter the molecular structure of some of the constituents of the cell.

The exact mode of action is unknown but the direct effects appear to be proportional to the energy absorbed from the rays, rather than to wave lengths or to intensity of dose. Probably the selection of the electrons which are set free from the atoms depends largely on the wave length of the rays but the electrons once set free at high speed do their damage in a random rather than in a selective manner. The atoms, molecules and colloidal particles are bombarded right and left and the amount of damage depends on what happens to be hit.

When electrons are driven from their orbits within the atom through selective response to rays of a given wave frequency their places may be taken by other electrons which enter the atom from outside or pass from an outer to an inner orbit. In this process energy is given off in the form of quanta of electro-magnetic waves. The electro-magnetic waves from the inner orbits constitute x-rays the frequency of which is specific for a given chemical element. These are known as characteristic x-rays. Apparently rays of this type aroused in the tissues play a minor part in producing biological effects.

The part of the cell most susceptible to radiation is the nucleus. Perthes in 1904, Koerniche in 1905, showed that ova during cleavage are very susceptible to the rays, Bardeen and Baetjer in 1904 that the power of regeneration in planarians is inhibited by exposure to x-rays. Bardeen in 1907 found that ova of the toad fertilized by spermatozoa previously exposed to x-rays develop abnormally and that the effects of a given exposure of spermatozoa before fertilization are of the same order of magnitude as the effects of giving a similar exposure to the eggs before fertilization. Since the cytoplasm of the spermatozoon is very limited, that of the egg is large in amount, this experiment proved the special susceptibility of the nucleus. The same investigator showed in 1909 that developing ova are most susceptible at the period of greatest chromatin production.

These experiments were confirmed and extended by the Hertwigs in 1911-12. These experimenters showed that if a spermatozoon is exposed to severe radiation from radium it may retain its power of motility and of entering an egg and exciting cleavage and yet play no part in subsequent development. Such an egg may develop fairly normally under the influence of the maternal chromosomes, although if injured paternal chromosomes contribute to the nuclei of the cells, development is abnormal. These investigators also showed that if an egg is sufficiently rayed and then fertilized by a normal spermatozoa it may develop fairly normally under the influence of nuclei of purely paternal origin.

In general it has been found that those tissues are most sensitive which

1. Contain a relatively large amount of chromatin.
2. Are in active cell division.
3. Have great regenerative power.

The cells of a rayed tissue are unequally affected. Regeneration takes place from the uninjured or less injured cells, the cells at rest at the time of exposure. Recovery is possible only when the regenerative powers of a tissue equal or exceed the susceptibility to injury, when there is a low injury-regeneration ratio. The therapeutic usefulness of the x-rays and gamma rays depends on the fact that pathological tissues may have a higher injury-regeneration ratio than normal tissues. The local tissue reactions are modified by general systemic reactions. These, as a rule, favor normal as compared with pathological tissues. The lymphocytes play an important part in these reactions (Murphy).

While the principles here outlined apply to tissues in general there are some tissue idiosyncrasies the causes of which are not as yet clear. Thus the leucocytes appear to be the most susceptible of mature mammalian cells. Although the most sensitive of these, the lymphocytes, have a relatively large amount of chromatin, this chromatin does not appear to be in the stage at which chromatin in general seem most susceptible, that of active cell division. Table 2, after Hirsch,[1] shows schematically the relative sensitiveness of normal tissues, on the basis of skin sensitiveness = 1. Thus on the basis of this scheme the lymphocytes are two and a half times as sensitive as the skin and fat is only one tenth as sensitive. The ratios given are only roughly approximate and not all investigators would agree with those here chosen. The table illustrates, however, the considerable variability shown by normal tissues.

TABLE 2. RELATIVE SENSITIVITY OF NORMAL TISSUE TO A RADIATION OF MEDIUM HARDNESS.

(Diagrammatic Scheme after Hirsch)

The sensitivity coefficients of normal tissues are given as arbitrary values assuming that of the skin to be 1.

Leucocytes:
- 2.5 Lymphocytes
- 2.4 Polynuclear leucocytes

Germinal Cells:
- 2.3 Ovarian
- 2.2 Testicular

Blood-forming organs:
- 2.1 Spleen
- 2.0 Lymphatic tissue
- 1.9 Bone marrow

Endocrines:
- 1.8 Thymus
- 1.7 Thyroid
- 1.6 Adrenal, Hypophysis

Blood vessels:
- 1.5 Intima

Dermal structures:
- 1.4 Hair Papillae
- 1.3 Sweat glands
- 1.2 Sebaceous glands
- 1.1 Mucous membrane
- 1.0 Skin
- .9 Serous membranes

Viscera:
- .8 Intestine
- .7 Liver
  Pancreas
- .6 Uterus
  Kidney

Connective Tissue:
- .5 Fibrous tissue (vascular)
- .4 Muscle
  Fibro-cartilage
- .3 Bone
- .2 Nerve tissue
- .1 Fat

Hirsch states that the bladder mucosa is more sensitive than the intestinal and the intestinal more sensitive than the buccal. The skin also varies in sensitiveness in different regions. Although bone is considered resistant to radiation necrotic changes have been produced in bone without concomitant damage to the skin (cited from Regaud).

TISSUE SENSITIVENESS

It is generally held that tissue sensitiveness decreases with increasing age, that cold decreases, heat increases sensitivity and that anaemic condition of a tissue increases its resistance.

Ewing[2] classes the relative radio-sensibility of pathological tissues as follows:

1. Lymphoma, lymphocytoma, lymphosarcoma, myeloma.
2. Embryonal tumors; carcinomata of the testes and ovary, basal-cell carcinomata.
3. Cellular anaplastic adult tumors; "round-cell" carcinomata, diffuse carcinomata.
4. Desmoplastic tumors; carcinomata simplex, fibro-carcinomata, squamous carcinomata.
5. Adeno-carcinomata, adenomata of the uterus, intestine, breast, etc.
6. Fibroplastic carcinomata, osteosarcomata, neurosarcomata.

The effects of radiation as a rule are not manifest for some time after exposure. This latency in tissue effects following radiation has excited much interest. Various factors play a part, direct and indirect.

By direct effects we mean those produced directly in radiated cells or their descendants. Jüngling[3] found that if dried beans are sufficiently rayed they will exhibit defects of growth when swollen in water and caused to germinate. These defects are similar whether a relatively short or long time intervenes between the radiation and the germination. Here we have a time latency due to lack of tissue activity.

The latency may be due to the time consumed in morphogenic processes. Thus if before or after fertilization eggs are given a mild exposure defects in development may not appear until the organism is well formed. Here the injury to the nuclei is such as to produce noticeable effects only in remote highly specialized cell generations. As a rule defects of development due to radiation of germ cells appear the earlier the more severe the radiation. In order of severity the defects may be arranged as follows:

1. Immediate destruction of morphogenic activity.
2. Marked defects, early in development, involving the whole organism.
3. Slighter defects appearing later in one or more organs.
4. Very slight defects appearing late in development.

Both 3 and 4 may be inherited as Mendelian recessives. Little and Bagg have shown that defects in the eyes and feet may appear in the third generation descendants of mice exposed to a ⅕ human erythema dose for five successive days.‡ Mavor has shown that the inheritance of eye color in fruit flies may be changed by irradiation.

By indirect effects we mean those produced in a given tissue by local or systemic physiological reactions aroused by the irritation of the radiation. Thus Murphy has found that resistance to implantation of cancer cells may be produced in mice either by mild exposure to the x-rays or by heating the mouse. It takes a week to ten days for this resistance to develop.[4] Murphy ascribes this increased resistance largely to stimulation of production of lymphocytes. We should expect delay in the appearance of physiological reactions which involve cell multiplication.

Pathological conditions exhibit considerable variability in the time elapsing between radiation and visible tissue response. The following table (Table 3) after Hirsch[5] illustrates this variability schematically:

TABLE 3. LATENCY PERIOD OF PATHOLOGICAL TISSUES AFTER HIRSCH

Latent period—brief
- Leukaemia
  - a. lymphatic
  - b. myelogenous
- Lymphogranuloma (Hodgkins)
- Lymphosarcoma
- Mycosis fungoides
- Psoriasis (early)
- Eczema
- Lichen ruber

Latent period—about one week
- Sarcoma round cell (large and small)
- Hypertrophy prostate
- Tubercular granuloma
- Tubercular granulation tissue
- Tubercular bone
- Fibroadenoma
- Lupus hypertrophicus
- Favus and Sycosis
- Acne
- Verrucae juveniles

Latent period—about two-three weeks
- Epithelioma
- Carcinoma
- Melanosarcoma
- Angiosarcoma
- Acne Vulgaris
- Lupus planus
- Goitre parenchymatous

Latent period—three or more weeks
- Keloid
- Atrophic skin
- Kerion Celsi
- Verrucae
- Fibroma
- Fibrosarcoma
- Fibromyoma
- Chondrosarcoma
- Chondroma
- Osteosarcoma
- Neuroma
- Lipoma

FACTORS IN FAVORABLE EFFECTS

Various factors play a part in the favorable effects shown in pathological conditions after suitable irradiation.

1. Direct destruction of tissue cells. Insofar as this plays a part it is mainly due to the action of the rays on the nuclei of the pathological cells. This effect may be such as to prevent cell division or it may affect cell division in such a way as to give rise to one or more generations of devitalized cells which finally cease to live. Some investigators appear to doubt effective direct effects of x-rays on cancer cells below the surface of the body. They believe that an exposure sufficient to destroy the cancer cells under these conditions would produce changes in the normal tissues too serious for therapeutic results. Jüngling[6] gives an illustration which clearly shows that cancer cells below the surface of the body may in some cases be destroyed without serious effects on the normal tissues. This figure (Fig. 1) shows a section through a portion of the mammary gland from a patient who had an extensive carcinoma. The carcinomatous region was divided into two fields by a vertical lead-rubber partition about 4 mm. thick and each field was given a 140% skin erythema dose. The exposed skin showed a reaction which led to desquamation of the superficial epithelium followed by pigmentation and recovery. The cancer disappeared where exposed to the rays. The portion of the cancer which lay beneath the dividing lead-rubber partition was apparently unaffected by the rays. Since the protecting partition was only about 4 mm. wide this portion of the cancer should have had the full indirect benefits of the radiation. The disappearance of the cancer cells where exposed, their preservation where not exposed to the rays, appears to show clearly here direct action of the rays on cancer cells in a patient whose skin and subcutaneous tissues suffered no serious effects from the radiation. One would expect, however, to find the scattered x-rays producing more effects on the protected region of the carcinoma than was here found to be the case.

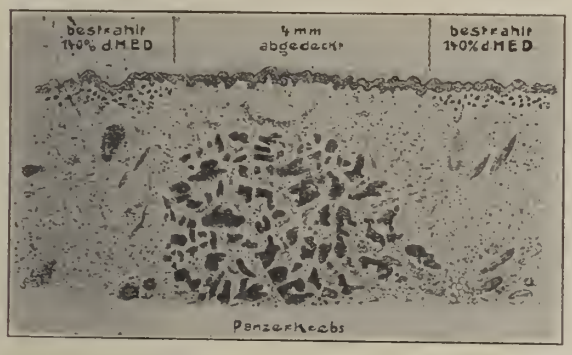

Fig. 1. Section through site of a carcinoma of the breast to illustrate contrast between regions exposed (at sides) and unexposed (at center) to the x-rays. (After Fig. 32, p. 173 in Jüngling, Roentgenbehandlung Chirurgischen Krankheiten, 1924.)

Tumor cells may be changed in type by irradiation and this change of type may be inherited by successive generations of tumor cells (Marie Clunet). Changes thus brought about may be favorable to the host. There appears to be no conclusive evidence that irradiation can produce changes in tumor cells unfavorable to the host.

The indirect effects of irradiation frequently, at least, play a more important part than the direct effects in radio-therapy. This is clearly the case in the treatment of such conditions as tuberculosis. The tubercle bacillus is known to be comparatively very resistant to the x-rays. It is also the case in the treatment of many tumors. The indirect effects are partly local, partly general or constitutional.

In the treatment of tumors the most important local reactions to which indirect effects of therapeutic value relative to the tumor cells are ascribed appear to be:

a. Accumulation of lymphocytes which in some manner at present not understood seem to discourage tumor growth. This type of reaction

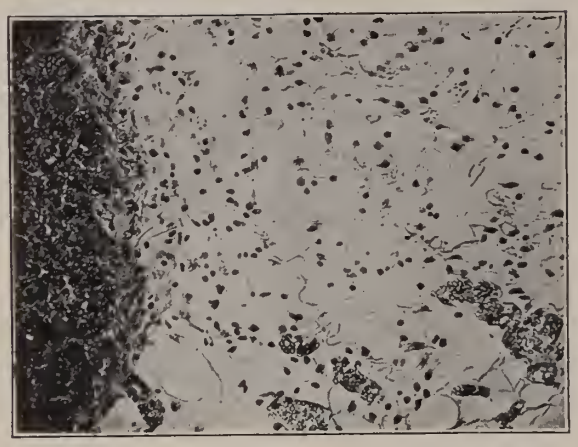

Fig. 2. Cancer graft (at left) in an untreated region of the skin of a mouse. Note active growth of graft and small number of lymphocytes. (After Fig. 5, in "The Effect of Cellular Reaction Induced by X-rays on Cancer Grafts", by James B. Murphy, R. G. Hussey, Waro Nakahara, and E. Sturm. Journal of Experimental Medicine, Vol. XXXIII, p. 299, 1921.)

has been studied most carefully relative to transplanted tumors by Murphy and his co-workers. Fig. 2 shows at the left a tumor transplanted into an untreated area of skin of a mouse. Fig. 3 shows a similar transplant into the skin of the same mouse in an area treated with a mild dose of x-rays seven days previously. In the former the tumor is growing vigorously, in the latter it is beginning to disappear.

Fig. 3. Cancer graft (at left) in a region of skin of mouse exposed to x-rays seven days preceding implantation. Note limited growth of cancer cells and large number of lymphocytes. (After Fig. 4 in article cited to legend to Fig. 2.)

The early indirect local beneficial effects of irradiation on tumors include along with the tissue lymphocytosis a stimulated growth of connective tissue and of blood capillaries. Subsequently the development of fibrous tissue may help to encapsulate the tumor cells and changes produced in the blood vessels and lymphatics of the tumor which check circulation, may aid in devitalizing it.

Although beneficial results of irradiation of tumors is ascribed in part to stimulation of the production of fibrous tissue irradiation may also be used to remove cheloids and fibro-sclerotic cicatricial bands. In the former condition the tissue cells appear to be specifically sensitive to radiation. In the latter condition dosage is aimed at tissue destruction rather than specific cellular reaction and results are apt to be less satisfactory (Wickham and Degrais, 1910). Rays of weak and medium penetration have a favorable selective action in certain cases of dermatitis marked by a chronic thickening of the dermis.

Of the general constitutional effects produced by irradiation which have a beneficial use in radiotherapy the stimulation of production of lymphocytes appears to be one of the most important. For this reason a blood count of a patient exposed to irradiation is favorable if the number of lymphocytes is relatively high, unfavorable if it is relatively low. Since the lymphocyte producing apparatus is very sensitive to the rays it should be protected as far as possible, where not itself diseased.

Concerning the underlying factors in the constitutional reactions called forth by irradiation we have at present little information. We may assume that irradiation produces cell injury which in turn gives rise to toxic substances which enter the blood stream. These toxic substances probably in part proteins, may, if not in excess, stimulate chemical and morphogenic defense reactions which favor normal as opposed to pathological tissues. If in excess, they may cause severe constitutional disturbances (radiation sickness).

The action of the lymphocytes in the body is still far from clear. They appear to be especially designed to furnish defensive chemical substances and possibly to act as nurse cells to growing connective tissue. They are very sensitive to abnormal physical and chemical conditions such as radiation. A local injury to lymphocytes appears indirectly to stimulate the production of lymphocytes in the lymphocyte forming organs, much as dried spleen and bone marrow may stimulate the activity of the bone marrow. The lymphocytosis thus stimulated appears in turn to aid in local defense reactions.

In radio-therapy we have, therefore, to consider not only relative sensitivity to irradiation of pathological as contrasted with normal tissues and

methods of dosing pathological tissues but also the general defensive mechanisms of the body and the best methods of calling these into play. Of recent years the attention of radiologists has been focused largely on methods of producing intense radiation of deep lying tissues without undue injury to normal superficial tissues, on hard rays and penetration. It is becoming more and more evident, however, that the radiotherapist must become acquainted with a far larger part of the immense spectrum of radiant energy than that of the hard x-rays and radium, must learn what biological reactions are produced through use of electro-magnetic waves of various wave lengths, and know how to choose various types of radiant energy in treatment. It is significant in this connection to note that Murphy was able through heating a mouse for a few minutes by means of an electric light bulb to produce in the mouse greater resistance to cancer implantation than he could by means of therapeutic x-ray dosage and yet in his experiments with mouse cancer he ascribes the chief use of x-rays not to specific cell destruction but to the stimulation of a defensive leucocytosis.

For discussion see Page 233

BIBLIOGRAPHY

1. Hirsch: Principles and Practice of Roentgen Therapy, 1925, p. 24.
2. Ewing: Radium Report, Memorial Hospital of New York, 1925, p. 247.
3. Jüngling: Roentgen Behandlung Chirurgischer Krankheiten, 1924.
4. Jour. Exp. Med., Vol. XXIX, 1919, p. 25.
5. Hirsch: op. cit., p. 243.
6. Jüngling: op. cit., p. 173.

†The cosmic rays, an account of which has been published by Milliken (Science, Nov. 20, 1925) since this paper was presented to the State Medical Society, are of great theoretical interest and are included in Table I.

‡Bagg has recently described the inheritance of eye, foot and kidney defects for 6-7 generations after irradiation (Am. Jr. Anat., Nov. 15, 1925).

The Role of X-Ray Therapy in the Treatment of Malignant Conditions*

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The treatment of malignant disease by radiation has received new impetus within the last few years by the perfection of high voltage apparatus and the investigation of the physical laws which govern radiation. Experimental physics has made it possible for us to measure the wave lengths and quantity or intensity of rays under various conditions and with a fair degree of accuracy. Our knowledge of the biological reactions of tissue to radiation has not kept pace with our knowledge of the physical laws which govern it, because of the limitation of our present understanding of the physiological chemistry of cells. We can not understand abnormal reactions without a sufficient understanding of normal reactions.

There are two main theories concerning the *modus operandi* of radiation. The first theory is based upon the belief that the biological effects are the result of the ionization and resultant chemical changes within the component parts of cells produced by secondary or Beta rays. The second theory is based upon the belief that the bombardment of matter by rays causes heat at the point of impact, this heat being responsible for the radiation effects.

It may be stated that when speaking of radiation we mean the short electro-magnetic waves of radium or of the Roentgen rays, the physical and biological effects of which are exactly similar. The only difference between these waves and light waves is that the former are shorter and consequently are more penetrating.

It has been satisfactorily demonstrated that the biological as well as the physical effects of radiation are directly proportional to the quantity of radiation absorbed. It has also been determined that the devitalization is caused by disturbance of equilibrium within the colloids and that the viscosity of proteins is diminished. But beyond these two facts little is known except that cells receiving sufficient radiation undergo degenerative changes which are not characteristic and cannot be distinguished from changes due to other causes or from any degenerative change which occurs in a malignant tissue. The changes are described as nuclear fragmentation, vacuolization, hyalini-

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zation and fibrosis. There is lymphocytic infiltration about the devitalized cells which may be directly due to the radiation or to the natural attempt of the tissues to surround and destroy the devitalized cells, the amount of this infiltration being proportional to the degree of resistance to the malignancy. It has been satisfactorily demonstrated that cells of embryonic type are more susceptible to radiation than more highly specialized cells.

It is thought by some that radiation of the end-arteries and of the lymphatics produces degenerative changes in the endothelial cells which causes the obliteration of the vessels. That this is a direct effect of radiation has been denied, however, because it cannot be produced in normal tissues unless huge doses of radiation are employed. It has been noted that after the excessive radiation of any area a process of fibrosis in the subcutaneous tissues is initiated and that later superficial ulcerations are caused by the gradual destruction of nutrition due to the constricting effect of the fibrosis upon the vascular supply. Many believe, however, that the effects of radiation on tumors are due to direct changes in the blood supply to the cells.

The supposition that radiation can wall off certain areas by its effect on the endothelial cells of the blood and lymph vessels has been one of the bases for the use of preoperative radiation, as, for example, in cases of cancer of the breast. It has been thought that because of this induced insulation of the growth, preoperative radiation would diminish the possibility of its dissemination through the vessels at operation. However, in view of the fact that ordinary radiation does not produce demonstrable changes in normal tissues, it is probable that any beneficial effects of preoperative radiation are due to other causes than to a direct obliterative effect upon the end-arteries and lymphatics.

There are a number of theories regarding the variations in the susceptibility of tissues. One large group of investigators believes that this variation is due to the selective susceptibility of the cells, certain cells of greater susceptibility being more easily destroyed than those of less susceptibility. It has been demonstrated that cells are unusually susceptible to radiation during mitosis because of some action upon the chromatin which bears the hereditary properties of the cell. As a similar reaction cannot be demonstrated in the stroma cells of such susceptible tissues, the conclusion is drawn that only certain cells are affected; and since radiation has a beneficial effect upon some types of malignant disease, it is concluded that the malignant cells must have a selective susceptibility.

It has been shown that in order to destroy certain malignant tissue *in vitro* an enormous dose of radiation is necessary, one which could not be administered to most malignant lesions. But the same experimenters found also that there was a great difference between the susceptibility of the same types of cells *in vitro* and *in vivo,* and that the reaction of surrounding tissues has an important bearing on the destruction of tumor cells. It has also been shown that there is an optional dose for the destruction of tumor cells and that greater or smaller doses are not as beneficial; and, further, that by radiating the entire animal, even though the tumor area is not radiated, there is a devitalizing effect upon the malignant cells.

From all these findings, then, we may conclude that the beneficial effects of radiation are not entirely due to a specific destructive effect upon tumor cells but that even though there may be no demonstrable change in them, the surrounding tissues must play a very important rôle. And it may be recalled that even before the advent of the so-called deep x-rays, certain patients were greatly benefited and probably cured by dosages that would not now be considered adequate to destroy neoplastic cells.

DEEP X-RAY THERAPY

The technic of deep x-ray therapy at first called for the administration of a huge dosage in the shortest possible period of time, so that patients were subjected to radiation for six or eight consecutive hours. Since we have learned that the beneficial effect cannot be entirely due to the destructive action of the rays we have been modifying our technic so that the same dose is divided and administered over a long period. By adopting our present method, we have diminished the great hazard of destroying the patient's physical resistance in our zeal to accomplish the rapid destruction of the tumor. The massive dose technic was based upon the demonstration of Koenig and Friederich that the biologic action of any given dose of the Roentgen rays is greater when it is administered in a single sitting. However, as

we have stated, it is still uncertain whether or not the biologic effectiveness of the x-rays depends entirely upon their intensity. Regaud has long contended that the best method of treatment consists in the administration of smaller doses over a long period in order that more cells may be radiated during mitosis when they are most susceptible. That there is an immunity to malignant disease is now generally accepted. It is probable that this immunity may be destroyed or at least depressed by many causes including over-radiation. It has been our observation that patients who have received a dosage as large as that given by the massive dose method but extended over a longer period, have convalesced more rapidly and that the ultimate result has been just as satisfactory.

Many have contended that radiation increases the immunity against neoplastic growths by a direct effect upon certain constituents of the blood or by the production of immunizing substances in other tissues. But there has been no actual demonstration that a specific or unspecific immunization is produced by radiation. However, it has frequently been observed that a malignant lesion in one tissue of the body will be benefited when malignant tissue in another region is radiated.

Although we have been employing deep x-ray therapy for only three years we have come to fairly definite conclusions regarding its value. For example, it has been our experience that among cases of cancer of the breast there have been more recurrences among those treated by intensive postoperative radiation than among untreated cases or those treated by moderate doses. On the other hand, the radiation of carcinoma of the cervix uteri by radium and the x-rays has given us more satisfactory results than have been secured by surgery or by surgery combined with radiation.

There may be several reasons for this apparent discrepancy between the results of radiation of the breast and of radiation of the cervix uteri. In the case of the cancer of the breast, the thickness of the diseased tissues over the lung is but a few centimeters so that we may radiate effectively only from the anterior field. Very little radiation could reach the chest wall from a posterior anterior field, and as the dose is limited by the skin tolerance we are able to give only an erythema dose which will not devitalize most malignant cells. The greatest factor may be that a large volume of blood receives an excessive dose and that this injury, added to the trauma of severe surgical operation is sufficient to lower the resistance of the patient. On the other hand in the case of carcinoma of the cervix we are able to deliver a huge dose of radium directly into the diseased tissues and by adding a predetermined dose of the x-rays, we may homogeneously radiate the whole pelvic cavity through portals on all sides of the body without including a large blood volume.

Our former technic for the treatment of breast cancer by intensive radiation was to use 200 kilovolts 520 milliampere minutes at 50 centimeters with a filter of one millimeter each of copper and aluminum. The areas treated were one anterior field, which included the supraclavicular and axillary areas, a second anterior field which extended from the mid-axillary line on the lateral chest wall to the opposite side of the sternum and as low as the costal margin, and one large posterior field which included the posterior supraclavicular, axillary and posterior lateral chest wall thus including all gland bearing areas. As the result of this technic several patients developed serious pneumofibrosis so that we modified the deep dose by using a 0.5 millimeter copper filter, but without any improvement in the results. Recently we have used either a shorter distance, that is, 30 cm. with 0.5 millimeter copper filter so that the deep dose is not proportionally as great as the superficial, or we have used lower voltage with light filtration and more frequent treatments.

REVIEW OF CASES

In a review of our cases I have found that of 74 cases of cancer of the breast which had been treated by intensive radiation, there were recurrences during the first year in 31 per cent as contrasted with recurrences in only 14 per cent of untreated cases and in 13 per cent of those which received a light treatment. These percentages are comparable to those obtained in a number of European clinics whose results I have recently reviewed and reported. I found from this summary that the average percentages for recurrences during the first year were 25 per cent for unradiated cases, 44.8 per cent for intensively radiated cases and 36.6 per cent for the lightly radiated cases. On the basis of these results we have concluded that the beneficial effect of postoperative radiation is still questionable and that the routine employment of intensive radiation is probably harmful. It

must be borne in mind, however, that surgeons most frequently refer to the radiologist those cases in which they are uncertain whether or not the operation has eliminated all of the malignant tissues. The fact that more recurrences are noted among cases which received intensive radiation than among untreated cases, demonstrates the fact that many malignant cells may remain after operation which are ultimately destroyed by the resistance of the patient and that this natural resistance may be depressed by excessive radiation. It is probable that the proper technic for the radiation of breast cancer is not yet developed and that we may expect better results in the future.

A comparison of the results of surgery and of radiation in the treatment of cancer of the cervix uteri is difficult because, prior to the classification of cases by the American College of Surgeons. most of the cases which were treated by radiation were of the inoperable or advanced groups. Surgeons find that 60 per cent of the cases which they see are inoperable and as in the remaining 40 per cent there is an operative mortality of 10 per cent, 64 per cent of the patients with cancer of the cervix uteri seen by surgeons must die from the disease or from the operation. Without attempting to classify cases according to the recognized groups I find that among forty cases all of which were treated two or more years ago by combined radiation with radium and the x-ray, regardless of the extent of the disease, 28 or 70 per cent have survived for one year or more. Among this series of unselected cases in the 12 or 30 per cent who are living, the period since treatment has been from one to three years. Among cases treated by surgery alone only 46 per cent of the operable cases lived for one year and 28 per cent for from one to three years. Among a group treated by radium alone, 62 per cent lived for one year and 27 per cent for from two to three years. We have used the combined radiation treatment for only three years, and therefore, we cannot consider that these statistics are conclusive; nevertheless they indicate that radiation of cancer of this region is decidedly advantageous and especially so from the economic point of view. It is interesting to note that the use of the Roentgen ray combined with radium has slightly improved the status of our patients with carcinoma of the cervix and we have observed that their convalescence is much more rapid than after the use of either form of radiation alone.

CONCLUSION

We may conclude, first, that certain types of malignant disease are more amenable to radiation than others—not entirely because of an inherent susceptibility of the neoplastic cells and their direct destruction by the rays but also because the rays induce a resistance or immunity within the entire organism; second, that intensive irradiation is sometimes harmful and probably yields no better results than the same dosage divided into shorter and less depressing periods; and third, that the natural resistance of the patient must be protected and if possible enhanced.

For discussion see Page 233

The Role of Radium in the Treatment of Malignant Lesions of the Mouth, Face and Neck*

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The most amazing fact which is elicited by a review of histories of cases of malignant lesions of the mouth, face and neck is the frequent presence of an extensive involvement when the patient first seeks medical advice. One can readily understand why a cancer of the breast, stomach, intestine, bladder or uterus becomes extensive before the patient seeks relief. The growth is hidden from view and pain which is sometimes a late symptom is the only factor that brings the patient to the physician. But how it is possible for a patient to let a cancer of the lip, tongue or cheek progress to a hopeless stage when he and his family can readily see the disfigurement, is certainly difficult to understand. For these obvious cases as well as for the less easily diagnosed cases of internal malignant disease it would seem that the only hope is to support the Society for the Control of Cancer

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and to extend its propaganda continuously rather than for only one week in each year.

In this connection let me call attention to the fact that the dentist very frequently sees these cases first. The first thought of the patient with a lesion of the lip, tongue or cheek is that it is due to a dental irritation. The cooperation of the dentist in establishing an early diagnosis is therefore of prime importance. The dentist assumes a grave responsibility when he treats early ulcerations superficially and without consultation with a competent medical man.

EPITHELIOMA OF THE LIP

A review of the forty-seven cases of epithelioma of the lip in our series shows that in two the growths were too extensive to warrant any treatment; that in eight cases any sort of treatment was refused, and that among the remaining thirty-seven cases twenty-four were treated by the application of radium to the lip and x-rays to the neck, eleven by excision of the growth, and two by electrocoagulation followed by radium.

Of the twenty-four cases treated by radiation, only one is definitely known to have developed glandular involvment subsequently, this patient having died from the disease twenty months after treatment. One patient died from a local recurrence of the growth and one from an intercurrent disease. Of the remaining twenty-one, three have not been heard from and eighteen—77 per cent of the total number, and 86 per cent of those heard from—have remained well for periods varying from three months to three and one-half years.

Of the eleven cases which were treated surgically, in eight the glands were removed together with the lip. Of these cases four—36.3 per cent—have survived from two to four years, three have not been heard from, and four have died—one from an intercurrent disease and three from extension of the growth. The two cases treated by electrocoagulation and radium have remained well, one for one and one-half years, and one for four months.

A critical analysis of these cases shows that local recurrence in the lip is quite uncommon, whether the patient has been treated with radium or by excision, and I believe both methods are of equal merit. The seriousness of this condition depends on the extent of the lymphatic involvement and the small number of surgical cures is explained by the frequence of glandular involvement

Fig. 1. Early case of cancer of the lip treated with radium. This type yields promptly to adequate radium treatment.

which necessitated extensive dissection. Constant vigilance is necessary if the glands are not removed when the primary condition is treated, and the patients should be instructed to present themselves for examination every three months, and not to wait for this period to elapse if they notice any enlargement in the neck.

EPITHELIOMA OF TONGUE

In the treatment of epithelioma of the tongue one must bear in mind the distribution of the lymphatic glands which drain certain areas.

Thus lesions of the tip of the tongue generally extend through the submental and sublingual lymphatic chains. Cancer of the border of the tongue drains principally into the submaxillary glands and lesions which involve the base of the tongue extend to the superior deep cervical lymphatics. In advanced cases any or all of these groups may be involved; and in any case the intercommunication among the lymphatic channels is so free that the only safe operative procedure is to make a complete block dissection of the glands of the neck regardless of the location of the lesion.

One point which is under discussion is whether the glands should be removed before or after treatment of the primary lesion. The more common practice I believe is first to remove the glands and then the lesion. Opponents to this sequence believe the growth should be removed first and later the glands, since the glands are the only barrier in the neck to extension of the growth, so that cancer cells moving along the lymphatic

Fig. 2-A. Advanced case of cancer of the lip of two years duration.

channels from the growth will be arrested by the glands. Of course this discussion brings up the interesting question as to the rapidity with which cancer cells travel through the lymphatics.

Fig. 2-B. Four months after radium treatment. This is a soft papillary type of carcinoma which responds readily to radium treatment. Radium is the preferable form of treatment as surgery would necessitate extensive plastic work.

Our method in most cases has been to remove the glands before the operation on the tongue is performed. This has not been entirely satisfactory, however, and in the future we purpose to take care of the primary lesion first. X-ray treatment will then be applied to the lymphatic areas, the glands being removed from three to four weeks later.

One cannot dismiss this subject without emphasizing the importance of prompt attention to any precancerous condition of the tongue, that is, leucoplakia, simple ulcers or fissures, and warty growths must be dealt with as soon as they are discovered.

The end results of treatment of epithelioma of

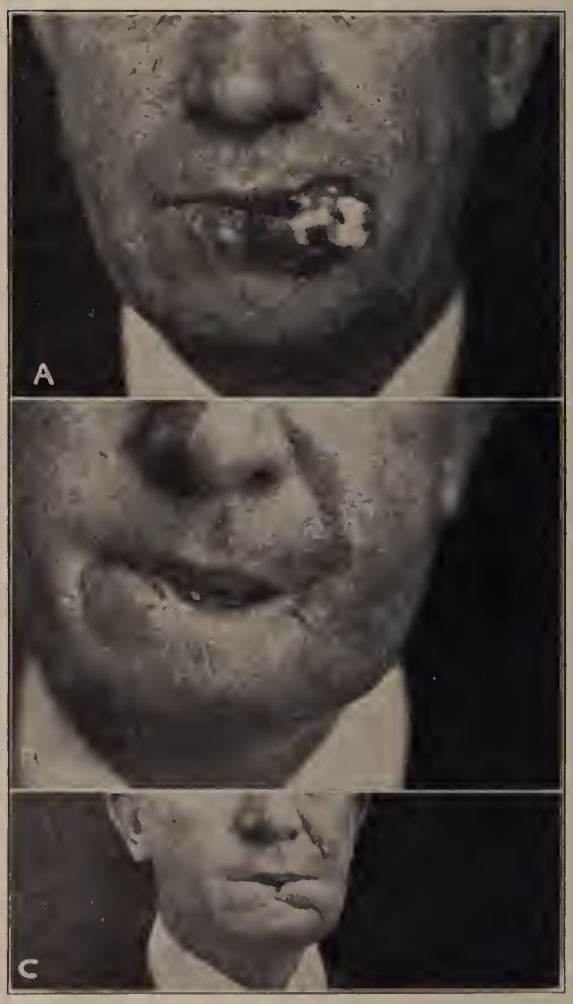

Fig. 3. Cancer of the lip treated by x ray and radium for eight months without result, (A). This case illustrates the fact that a lesion which does not respond in from four to six weeks to radiation by disappearance of the growth and induration must be looked upon as radio-resistant and valuable time must not be lost before some other form of treatment is used. In this case the entire growth was destroyed by electrocoagulation, (B); four months after which a plastic operation was performed, (C).

Fig. 4. Cancer of the lip of the hard indurating, ulcerating type, the induration extending from one angle of the mouth to the other. This type of carcinoma does not respond well to radiation. In this case excision of the entire lower lip was done, with a new lip made from flaps taken from each cheek.

the tongue are not nearly so encouraging as the results secured in the treatment of epithelioma of the lip, chiefly because the former is more inaccessible and is accompanied by an earlier involvement of the lymphatics.

Our series comprises forty cases of epithelioma of the tongue. In six cases treatment was refused, and in eight the disease was so far advanced that no treatment was advised. Among the remaining twenty-six cases, in five the primary growth was excised and the glands of the neck were removed. Among these three have died, one has a recurrence in the larynx and one has remained well and free from disease for four and one-half years.

The remaining twenty-one cases were treated with radium and by the application of the x-ray to the glands of the neck. Among these, in seven the growth was in an early stage, and fourteen were considered inoperable. Of the seven early cases all have remained well and free from disease for periods varying from three months to three years. Among the fourteen cases which were not considered operable, ten have died and four (28.5 per cent) have survived—one for six months, one for one year, one for one and one-third years, and one for one and one-half years. In two of these surviving cases the glands of the neck were removed, and in two they were not removed, so it is evident that one can accomplish considerable palliation and an occasional cure in advanced cases.

These figures appear also to indicate that in early cases radium will give as good and perhaps better results than can be secured by surgery. It should be borne in mind also that a patient may submit to radium treatment but may object to having his tongue partially excised. In every case, however, the glands of the neck must also be treated either by x-ray or preferably by surgery.

CANCER OF THE JAWS

Our series includes thirty cases of cancer of the jaws, twenty-three of the lower and seven of the upper jaw. In most cases the growth in the jaw was secondary to an epithelioma on the gum or cheek; in a few it was secondary to a growth in the floor of the mouth or in the tongue. In seven cases no treatment was advised on account of the extent of growth. Three patients refused treatment. Of the remaining twenty cases only three were considered operable. Of these three one has remained alive and well for four and one-half years, one has died and one has not been heard from. The remaining seventeen cases were treated with radium chiefly for palliation. Of these three have survived, one for a year, two for less than a year; eight have died and six have not

been heard from. The interest of the dentist is chiefly required in this group of cases, since in the majority of cases, the dentist is consulted first when some trouble in the jaw is discovered; and unless the dentist promptly refers the patient to a physician valuable time will be lost before proper treatment is instituted.

CARCINOMA OF THE TONSIL AND PHARYNX

Our series includes fourteen cases of cancer of the tonsil. In four cases the disease was too far advanced for treatment. In the remaining ten cases, radium was applied to the tonsil and the x-ray was applied externally. Of these six have died, two have not been heard from, one has survived for two and one-half years, and one for seven months.

This like cancer of the pharynx is a most fatal disease. In practically every case the glands of the neck are involved at the time of examination and the rapid course of the disease is increased by pain and inability of the patient to get adequate nourishment.

We have seen six cases of pharyngeal cancer. In two the growth was too far advanced for treatment. Of the remaining four, one died fifteen months after treatment, one has survived for four years, one for four months, and one (a malignant polyp) for three years. Three cases of sarcoma in this region have also been treated. Of these all are well, one having lived for three and one-half years, one for two years, and one for six months. Sarcoma of the pharynx apparently responds to treatment better than any other type of malignancy here. This group of cases is small, yet the results are sufficiently striking to be especially noted.

EPITHELIOMA OF THE BUCCAL SURFACES

Twenty-five cases of epithelioma of the buccal surfaces of the cheek have been observed, all but two of which were considered inoperable. In one case treatment was refused and in one the growth was too extensive for treatment to be advised. Of the remaining twenty-three cases, seven (30 per cent) have survived one for two years, one for one and one-half years, two for one year, one for six months, one for three months and one for one month. Ten have died and six have not been heard from. The method of radium treatment used in all these cases was the burying of radium emanation seeds or needles wherever possible. The emanation seeds are preferable as they can be more extensively used and their application occasions less pain and trauma. In practically all cases x-ray has been applied externally.

For discussion see Page 233

Carcinoma of Uterine Cervix Treated with Electric Coagulation and Radium*

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The biological and physiological effects of radiation on malignant and on normal cells and tissues have been discussed by others on the program. We wish now to draw attention to those biological and physiological effects which particularly have guided us in our choice of treatment.

The patients discussed in this study were not selected except that they were cases of carcinoma of uterine cervix. All patients presenting themselves for treatment were accepted and treated. Their ages varied from 28 to 73 years. Some were hopeless, having metastases in lungs and bones, large cauliflower-like masses filling the vagina, and showed extreme loss of weight and secondary anaemia. Others presented themselves with small cervical erosions associated with but a slight cervical induration. The tissue excised for diagnosis demonstrated the presence of malignancy. Still others were in various stages of development between these extremes. Microscopically the cylindrical, basal and squamous cell types were diagnosed.

The treatment varied consisting in some of radiation alone, in others of radiation followed by pan-hysterectomy followed by more radiation, and lastly by the method we now consider the method of choice—of electric coagulation of the carcinomatous mass followed by radiation.

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One case only, a patient 73 years old, with a basal cell carcinoma, showed absolutely no infiltration of the para-cervical tissues. All others showed more or less involvement of the broad ligaments. We are of the opinion that much of the palpable infiltration is due to infection through the cervical ulcer and not all malignant, but that all such infiltration should be regarded as malignant and treated as such.

The object of radiation therapy must be to kill or to encapsulate the carcinoma cells without doing irreparable injury to surrounding normal organs and tissues.

We do not believe that radium has a selective action upon carcinoma cells; it influences all cells. The beneficial action of radium depends rather upon the radio-sensitiveness of the cells exposed to radiation, and it is here that the law of radiation sensitiveness of tissues formulated by Bergonie and Tribondeau holds true. "Immature cells and cells in an active state of division are more sensitive to rays than are cells which have already acquired their fixed adult morphologic and physiologic characters." An anatomically and physiologically adult tissue will require much more radiation and will respond much more slowly than an embryonal and as yet undifferentiated tissue with consequent extensive scarring of the adult tissue.

Carcinoma cells are morphologically and biologically embryonal; some more so than others, and this fact determines the treatment. The radiation sensitiveness is greatest in the basal cell type, less in the cylindrical cell adenocarcinoma type, still less in the squamous cell type, and least in normal tissue cells. Radiation doses, sufficiently strong, can be delivered with the cervix as the center of radiation, which will cause reaction in the healthy adult celled bladder and rectum consisting of oedema, hyperaemia, tenesmus, etc. Carcinoma cells lying in these regions and exposed to the same radiation must suffer far greater damage due to their greater radio-sensitiveness.

The limits of radiation depend upon, and are measured by, the amount of radiation the bladder and rectum will withstand without damage. These structures are but 2.5 to 3 cm. distant from the cervical canal. According to the measurements of Schmitz this dose is about 4,200 mgm. hours. With this dose, carcinomata 5 to 7 cm. distant from the cervical canal should succumb. More distant malignant cells while not destroyed, will have their reproductive power restrained, normal cells will remain uninjured. Then it becomes apparent that an exact gauging of radiation dosage will prevent irreparable damage to normal vital tissues. Thrombosis takes place within the vessels of the tumor with resultant necrosis and local destruction. Ewing is not so sure of the direct destructive action of this ray and has "become convinced that the clinical results are not usually due to the direct killing effect of radiation, but are generally brought about indirectly and mainly by interference with the circulation, capillary, venous, arterial, and lymphatic. In many cases the main part of the destruction has been caused by occlusion of blood vessels."

The great important healing factor is the development and growth of connective tissue in the radiated area with resultant dense scar formation. This scar formation is used by Farrar, of New York, as the criterion of sufficient radiation. Sections of tissue taken at post mortem will show cancer cells imbedded in fibrous tissue.

Clark says: "To thrive cancer requires vascularization at its frontier zone. A hyaline or fibrous barrier is therefore an effective block against the invasion of new blood vessels and serves excellently in the process of incarceration and segregation of malignant cells."

RADIATION SHOCK

There is a source of danger following radiation, which must be thoroughly understood and guarded against. We refer to radiation shock. It is directly dependent upon the amount of malignant tissue destroyed providing the patient is capable of reacting. Large sloughing malignant masses cause shock when radiated. This shock is due largely to the absorption of destroyed cancer cells, as manifested by the increased non-protein nitrogen of the blood, and the decreased blood chlorides and white blood cell count.

A patient refractory to radiation will show none of these changes and this may be used as a partial index of negative result of radiation. Therefore if following the usual radiation dose a patient does not show an immediate increased non-protein nitrogen of the blood and a decrease in chlorides and white blood count we may suspect that the patient is radiation fast, and will not be benefited by radiation.

In as much as most of the patients showed secondary anaemias of varying degrees, and that the white blood count was usually somewhat lowered, it was dangerous to submit these patients to a severe radiation shock such as can be expected where large, sloughing cancer masses are radiated. Transfusions have been resorted to following radiation and general measures to support the patient's health were necessary. It, therefore, seemed advisable because of the radiation shock, to remove as much of the carcinomatous mass as possible previous to radiation. To accomplish this, at first the simple electric cautery was used, but soon discarded because of the length of time necessary to cauterize large masses at the time of operation and the uncertainty of the limits to which cauterization extended. Electric coagulation was then tried. The destruction was rapid. The limits of destruction could be determined to an exact nicety. The apparatus was simple and easily handled. Only the tumefaction was removed, no effort being made to coagulate masses in the paracervical tissues and in the bladder and rectum. This done the radium was inserted at once, using 50 to 100 mgms. of radium element in the cervical canal, and radium element containing needles to the cervical margin at the tumor site. The bowels had of course been thoroughly emptied previous to treatment and a retention catheter placed in the bladder. The bladder and rectum were forced still farther away from the center of radiation by forcefully filling the vagina with gauze. The patients were encouraged to drink large quantities of liquids, chiefly milk and water. Radiation reactions were combatted by measures to encourage elimination.

We are convinced that pre-radiation removal by electric coagulation of tumefaction arising from and in the cervix reduces post radiation reactions. Transfusions greatly hasten the post operative recovery.

The anatomical limitations of pan-hysterectomy are definite and it can be used only on selected early cases, and then only by competent men.

The question of rendering inoperable patients operable and then doing a total hysterectomy is interesting. In this connection it is worth while to mention the case of a woman radiated for cancer of the cervix in whom it was necessary to do a laporatomy for other purposes one year later. The pelvis was carefully inspected and palpated at the time of the operation, and was found entirely free from any masses. The cervix was small and freely movable and the broad ligaments were soft. Radiation has rendered inoperable cases anatomically well in that the cervix became freely movable, firm, with scar formation, the pelvis devoid of palpable, abnormal masses, and the patient clinically well after the five-year period had elapsed. However, cervical recurrences have taken place following radiation doses which theoretically would kill all adjacent cancer cells.

J. E. Davis says: "The vital thing to be considered is not altogether the question of whether every cancer cell in the field is killed. A change from what we call a normal cell, or relatively normal, to the cancer cell may go on when all predisposing conditions are present." Davis continues: "We do not understand the change of cells from benignancy to malignancy. We may think a cancer cell killed. The histologic appearance will indicate the cells are dead, yet I have seen more than once a tissue that, if it were examined today one would say it was absolutely beyond the possibility of containing life, yet, if you examine it three weeks later you will find a nest of cells beginning to grow."

We see no justification in doing a pan-hysterectomy on an inoperable patient made theoretically operable by radiation, but there is still much justifiable contention that radium should be used as a pre-operative adjunct to pan-hysterectomy in the clinically operable case. However, the high operative mortality is prohibitive when compared to the safety of radiation. This fact has influenced us to favor radiation with electric coagulation as the treatment offering the greatest hope for immediate benefit and recovery.

Very advanced cases with the so-called frozen pelves and sloughing cervical masses should not be radiated except for a small dose to check profuse hemorrhage, as large doses in my hands have caused immediate death.

UNDER DOSAGE

In early and moderately advanced carcinomata the greatest cause for failure is under dosage. Repeat the radiation until the cervix is white with scar formation. The number of primarily radiation fast patients is very small. We have one patient in mind who had a moderately advanced basal cell carcinoma of the cervix. We reduced the malignant mass by electric coagula-

tion and gave 3,800 mgm. element hours radiation to the cervical canal. The response was splendid, showing a nearly healed cervix in one month. Two weeks later two small masses, about one cm. in diameter. could be felt at the entroitus under and attached to the mucous membrane of the vagina. In spite of radiation, these masses continued to grow and metastusize laterally to the vulva and inguinal glands. We believe these vaginal masses were a result of direct implantation of malignant cells from the cervix to traumatic erosions of the vaginal wall at the time of the first radiation. This could happen as easily in an early case as in an advanced case, and therefore we should be very careful not to injure the vagina for you may cure the cervical cancer but fail because of the implantation metastasis you have engrafted at some distant point.

Another case of early basal cell cancer of the cervix was radiated and we expected a favorable result. Six weeks after radiation the patient complained of backache and three months later showed a pelvic mass. Laporatomy showed an abscess in the broad ligament. The coagulation was too superficial to injure the peritoneum and we interpreted the abscess as the lighting up of an old pelvic inflammatory disease following the radiation.

Over-dosage of radiation carries with it as sequellae the recto-vaginal and vesico-vaginal fistulae. To reach distant malignant masses radium should not be given intra-cervically in doses large enough to produce complications, but should be supplemented by the deep therapy roentgen ray.

CONCLUSION

In conclusion we believe:

1. Radiation of radium and x-ray to be the most valuable agent to combat carcinoma of the cervix.

2. Maximal doses are to be given in early cases. Fractional doses in advanced cases. In far advanced cases radiation is used to prevent hemorrhage only.

3. Removal of cervical tumefaction will lessen the post-radiation shock or reaction.

4. Great care must be taken not to traumatize the vagina to prevent direct implantation of carcinoma cells.

DISCUSSION

Chairman M. J. Sandborn* (Appleton): We now come to the discussion of these very helpful papers. I am sure we are very fortunate in having the opportunity to hear the one who has been selected to open this discussion. He belongs to us in a way. I happen to know that part of his under-graduate education, at least, was received at Nord's College in my town. I first became acquainted with him at that time. He has been a very great help to me at all times when I have consulted him in regard to some problems which were troubling me in radiology. I think perhaps the radiologists at large know him best through the fact that he was the one who gave to us that very important adjunct which we use in our diagnostic work, the Potter diaphragm. I am very happy to present to you Dr. Potter of Chicago, who will open the discussion. (Applause.)

Dr. H. E. Potter: I think you have listened to a wonderful group of papers on radiotherapy. During the last three or four years I have been forced to listen to a lot of therapeutic papers that I didn't care much about. I don't think there has even been a program that went half a day where there weren't a lot of things said which I could not subscribe to and yet couldn't quarrel with. I don't think there has been anything said here this morning that one couldn't subscribe to in the light of what we now know about therapy. Of course, most of the clinical talk has been about cancer therapy, and that leaves out a lot of therapy, but does take in the newer conceptions of therapy, short wave therapy.

The papers of Drs. Beets and Bardeen were wonderful. They give to us some very good physical and physiologic conceptions of what may happen in the cell during x-ray therapy. They come about as near giving us an idea of what happens as, for instance, we know about certain of the drugs. We don't know what happens to the cell and the ions and the quanta and electrons when sodium iodid is used as a medicine; we can't expect to know all about the action of x-rays on the cells when we don't know more about physiology and physiologic chemistry than we do, but it is a wonderful advance to get all this material together. Dr. Bardeen has the best line of associated facts that I know of concerning the physiologic action of x-rays on cells.

I won't try to discuss this quantum theory, because as soon as I would go along a little way some one would recognize that I didn't know all about it. I read the papers over several times before I came here and I recognized them when they were read. (Laughter.)

If we didn't learn anything else from this program but two things, we will have done well. One thing mentioned by Dr. Portmann is one of the first admissions that I have heard that short wave length therapy given as hard as you dare is not good for breast carcinoma post operative. I have been convinced of that for some time. I wouldn't use it on breasts. I use the old-fashioned moderate therapy, hoping to block the lymphatics, hoping to discourage the growth of any little cells that are left in the breast, not aiming at the spine, hoping perhaps to reduce endocarditis and starve out some of the remaining cells, hoping to retard their growth, etc. I think our results show it to be a better mode of treatment. If I were going to modify it in any way, I would go back to the old method of using new filters. You would be surprised to see what some of the older men get with the millimeter filter on breast conditions, who refuse to go along to the limit of short wave therapy.

The other thing that impressed me was the rational attitude expressed in Dr. Doege's paper in regard to carcinoma of the uterus, where there is no question but what the short wave therapy has won a victory. If thirteen or fifteen per cent cures is not a victory, then I am mistaken.

There is a very definite advance in the management of carcinoma of the uterus by the use of short wave therapy, and I like his destruction by electro coagulation of the massive presentations in order to cut down the bad effects of radiation sickness.

Dr. Jones' paper, showing wonderful and reporting

*Deceased. February 20, 1926.

some less wonderful results on conditions around the neck, lip and mouth, reminds me of George Failor's work where he would mention x-rays, surgery and coagulation instead of radium, surgery and coagulation. They are almost interchangeable. The words x-rays and radium are almost identical in regard to many of the things that you meet. I have seen some mighty bad results from using radium on the mucous membrane of the mouth. I don't think with x-rays alone we get very good results on the neck and face inside as compared with many other places in the body, on account of the terrible free drainage. I think that the combined methods that these men are using are getting us more than anything else.

I like to think of x-ray therapy not in the terms of Greek letters, but in the terms of energy being transmitted to a place that needs it. Before we had this deep filtered ray, we were not able to get, and we knew it, anything more than a mildly stimulating dose at four inches below the depth, because the skin wouldn't let it and we didn't have the power to put it in there. It is near enough to believe that x-rays produce benefit at the point where they are absorbed; that is, you are putting in energy and it is transmitted or travels to the tissue and there it should produce its effect.

There are two aspects to this deep and filtered ray, and one aspect is the quantity; the other aspect is quality. We have no argument with any one about the question of quality. We want to put the right quality of rays into the tissues to be absorbed at the depth and to get a proper dose quotient. The matter of intensity or quantity is a matter about which we may have lots of discussion, because when you figure the necessary dose to kill a cancer would kill your patient, you realize there is much to be said. It has all been admitted and proven. This stage has been gone through and people have backed up to fractionated doses and talk about the limits for the patients and the injury regenerative ratio and those things; that makes us now all agree that while the physicist may calculate and the physiologist may explain and the pathologist may determine what has been done, the dosage has got to be handled by the doctor who is treating, not a tumor, but a patient with a tumor. In that sense he is a little higher than these other men mentioned, but he has taken quite a while to get around to the fact that he can't do what he must do in many cases, so in any given case we must aim at a result for that patient.

Dr. Doege mentioned something, maybe you missed it. He said the patient that had the large cauliflower cancer in the last stages must be given no dosage or light dosage; the patient with a moderate involvement might be given a moderate dosage, and a patient with a recent involvement could be given what they dared to give. That is exactly opposite to the attitude first taken and it is based not upon what the requirements of the cancer are, but upon the endurance of the individual. So we are gratified that we have this new weapon in the battle against malignancy. But, just as with 606, we don't try to do it all at once; we try to follow it along and use it like medicine instead of like a cannon.

There is one thing that isn't very often mentioned, and that is a thing that appealed to me very much. The crowd will probably reason this way: for our best results in radiotherapy, particularly in hard cases and the deep cases, there is a variation in malignancy, hence a variation in the action of x-rays on tissues which microscopically are similar. Out of ten cancers all alike, apparently, one or two will do for us what the rest can't be made to do. Why that is we do not exactly know, and in advance one can scarcely pick them, but you have to encourage yourself in the fact that if you do ten cases and don't get very good results in six or nine of them, you are going to get a particularly wonderful result in the others and you won't know why, but you are glad and it partly pays you for doing the rest of the work.

Now there is a criticism that I have made in regard to the widespread use of short and of intensive wave therapy, and that is its use in places where you really ought not to use it and where it is not indicated, such as the superficial metastasis of the breast, such as the rather mild condition such as Hodgkin's disease. It has been a principle of mine for fifteen years in treating a leukemia to keep my poorest eye on the white blood count and my best eye on the red blood count. You aim at the infiltrations and you get a toning up of the individual so you get a result, that is, systemically he feels well. You don't give him a treatment that will give him a reduction in reds which will cause prostration or depression that lasts more that a very few days. You turn around and give him an intensive dose of x-rays and he will be put down and down and down, and I have seen them go right down and die, whereas if they were kidded along with decent doses, you would get a long life of considerable comfort.

That is practically a malignancy of the blood, and it is one which heals with moderate therapy. I can't keep my mind off leukemia and Hodgkin's disease. I don't like to see intensive doses given them unless the others fail. I feel the same way about the breast where you have practically an inch of tissue in many cases to irradiate and you aim to irradiate them as if they were four or five inches deep. I have seen many cases where you could just wipe off the superficial metastasis and leave a perfectly raw surface, and you get a beautiful cleared up result, not saying anything about the metastasis in the spine, whereas you could give them a terrible prostration, a superficial edema that would prevent you from doing anything for a long time, and a result where the little metastasis would stay just about as they wanted to, with deep therapy. Thank you. (Applause.)

Chairman Saudborn: This series of papers is now open for discussion. We want our guests who are visiting us today to feel that they are perfectly free to enter into the discussion, in fact, if they don't do so, I am afraid I will have to call on them. I hope they will do so voluntarily. Who will be the first?

Dr. H. R. Foerster (Milwaukee): I would like to give a very hearty second to every single word that Dr. Potter has said. I think it is in accord with the experiences of a great many radiologists. We, of course, feel very gratified at having such an excellent program on the first day devoted to radiology in the state meeting. We hope that it will lead to a great deal more of high class, scientific, conservative work.

I would like to call attention to one phase of Dr. Portmann's paper which I think is of extreme importance, and that is the question of irradiation of breast carcinoma. Dr. Portmann's observations regarding the high incidence of recurrences and of mortality following the post operative period of breast cancer cases is in accord with that obtained in clinics and in private practice throughout the country and Europe. It merely points to an error in the method of treating cancer that has been in vogue during the last five years and from which men are trying to divorce themselves at this time.

Dr. Potter, in discussing that phase of Dr. Portmann's paper, has brought out the important point, and that is that these cases are treated with the improper dosage. They have been treated with the wrong quality of x-ray or they have been treated too intensively in the hope of obtaining the cancer cure where we now know cure is practically impossible.

Our treatment of post operative cancer recurrences or cancer prophylaxis against recurrence should be directed at supporting the patient in the fight against the disease, not in treating a hypothetical residue of cancer tissue which the surgeon may have left inside. We, without having any statistics to bear this out, confidently state our results in the post operative therapy of cancer recurrences, particularly as regards breast cancer, have not been as good during the last few years as when we used the intensive therapy of extremely high voltage and heavily filtered rays, as they were, say ten years ago when we used more moderate voltage. Our present method of treatment in this type of case is to use a combination of moderately heavy filtered and unfiltered x rays, varying

it in the individual case according to the demand.

I again wish to express my appreciation, or rather the appreciation of Wisconsin radiologists to those who are our guests. (Applause.)

Chairman Sandborn: Who will be next? Certainly these papers are worthy of discussion. We want you to understand, too, that you need not be a radiologist; in fact, we as radiologists would welcome discussion of these papers by surgeons or internists. We feel that these subjects should be approached from all sides. We have simply been presenting one phase this morning, but we would be glad to have any one take part in this discussion.

Dr. K. W. Doege: Mr. Chairman, I am glad of the encouragement the Chairman has given the surgeons to say a few words this morning. I just want to limit my remarks to cancer of the breast. I believe throughout the entire symposium I have felt there was an under current of doubt in the minds of the radiologists as to the real efficacy of radium or x-ray treatment in cancer of the breast. I am glad to hear that. I have taken the position that very radical excision of cancer of the breast is the only treatment for this disease. The wide excision of the skin with the immediate transplantation of skin is a method that I follow. As to whether x-ray treatment is necessary later on or not, there may be a difference of opinion. Personally, I have resorted to other means. If I have understood correctly what was said this morning, I believe that large massive doses are not to be given. I believe that the radiologists rather use a stimulating dose that is supposed to increase the resistance and defense mechanism of the entire body.

It may not make any difference as long as we have this same idea whether we use radium or x-ray to accomplish this, or whether we use other sustaining measures. Personally, I am not using the x-ray for that purpose, but I am using transfusion or repeated transfusions, and use all such things as we know have a stimulating effect upon the system in order to increase the defense mechanism, whatever that may be.

To limit the x-ray treatment merely to the affected area after excision, if it is used at all, would be useless in my opinion. I do not think that metastasis is limited to the nearby glands; I believe that metastatic dissemination of cells occurs very early in every carcinoma, that they may be in the lungs long before we recognize that cancer in the organ that we are expected to treat, and that there they are held by the defense mechanism which the system has developed and may stay there forever and may never come to break out as it occasionally may do. Therefore, I believe that radium treatment or x-ray treatment post operatively used on the affected or involved area alone is not desirable, or the only thing, but that transfusions, such measures as will add to the defense mechanism in producing general health, vigorous growth and vigorous conditions are the necessary things. (Applause.)

Chairman Sandborn: Who is the next? If there are no further volunteers, I am going to call on a man who perhaps is as well qualified to discuss x-ray therapy, radiation therapy, not only from a practical, but from a theoretical standpoint, from the standpoint of experience, as any one in the world, I believe. I am now going to call on Dr. B. H. Orndoff, of Chicago. (Applause.)

Dr. B. H. Orndoff: Mr. Chairman, I wish that I were able to discuss these papers commensurate with the introduction that I had. I feel that I was very unfortunate in not being able to hear the first two papers, in fact, I missed part of the clinical papers. I look forward with pleasure to seeing publication of the papers of Dr. Bardeen and Dr. Beets.

I would mention one point in this discussion. I feel much has been said in the discussion that is splendid. They brought up very valuable points. The point I wish to speak on is in connection with the bad results that have occurred following radiation of breast cancer. I agree with the fact that these cases have been over-radiated and am convinced that that must be so. The question, however, of the statistics causes me to doubt if they give us the true insight into the situation. I am convinced that when the advent of the new deep therapy came along, there were many cases operated on that would not have been operated on otherwise, and a surgeon in selecting cases for operation would certainly not have operated on many cases that were operated on.

Now to depend upon radiotherapy alone is not the point, we must use all these other measures, if necessary. I feel, however, that another point might be mentioned in this connection, that is that it occurs from deep therapy in tissues other than recurrence in which the individual has extended injury. The pleural and pulmonary fibroses that occur in distortion of the mediastinum and disturbances of the circulation are of particular importance. In a few cases they have been apparently very disastrous in our handling.

I feel that the proper things have been said about reducing short wave length therapy for breast cancer, but I wish to just call attention to the fact that statistics rather make the picture a little darker than it really is. The work of Dr. Emil Beck, which I have been associated with the last few years, consists of removing the entire breast and leaving the areas open for radiation, and at the present time seems to show less recurrences than any other method I know of where radiation and surgery are applied together in cancer of the breast.

I am very grateful for the papers that I heard and for this discussion that has preceded mine. (Applause.)

Chairman Sandborn: Is there any one else? I am going to call on Dr. Alden Williams, of Grand Rapids, Michigan, to discuss the papers.

Dr. Alden Williams: I feel that I have been doubly repaid for crossing the lake. I avoided looking at the Chairman, thinking that possibly if he didn't catch my eye he wouldn't call on me.

I do think the times are changing. We have two good men here from a surgical clinic talking very much as if they were from a radiological clinic. This cloud which seems to be gathering over the treatment of recurrences or of post operative breasts really isn't as dark a cloud as it might appear, when you think that the radiologist is treating what has been a failure on the surgical side.

We have in our national society several radiologists who are advocating what seems to be heresy at this moment, the managing of breast cancer alone by the radiologist, not after dissemination has occurred and after the surgical attempt and hope have gone. This, of course, brings up an argument that might lead to trouble. I only mention it without arguing.

I am very glad to have been here. I think that I can take back a clearer idea of the present situation. I am quite sure that in a year or two there will be changes, the statistics will be turned around so that they will have a silver lining and we will begin to look at cancer in other parts of the body, not post operative, we will begin to look at cancer treatment in other parts of the body somewhat the same as we are now looking upon cancer of the cervix treated by radiation. I wish to thank you. (Applause.)

Chairman Sandborn: Are there any other volunteers?

Dr. Churchill: Pardon me, I just had an argument with my father about Dr. Jones' paper. When Dr. Jones described the fate of a group of patients, he would say one lived for three years, another for a year and a half, etc., I would like to ask Dr. Jones if that means those patients died at that time or if that is the end of the report at the present time.

Chairman Sandborn: If there are no further volunteers, I will have to make another draft. I will call on Dr. Foster, of Chicago.

Dr. Foster: Mr. President and Gentlemen, I came up here to listen. I am glad I came. I thank you.

Chairman Sandborn: He got through the quickest I ever knew.

Dr. Joseph Smith (Wausau): A good many years ago in the early days of radiology, I had some interest in that

work and we had occasion to follow up some of the very early radiations of malignant diseases. In those days such apparatus as is now available, of course, was unknown; filters and high potential sources of energy were not available. Many of you know that tremendous disasters occurred in many of the cases and some good results that were probably favorable were attained.

I had the opportunity of carrying out some work which I think has remained more or less fundamental up to this time. Since that time, in the course of events it has happened that I have been interested along other lines and have not been in a position to keep in touch with the radiological work as much as I did in the earlier days. During this interval there has come in the development of the high voltage current and the large dosage treatment, all of which I have followed from the side lines with a good deal of interest. You can imagine, however, that it must be something of a shock to me to hear the radiologists, who are leaders in that line of work, come back this morning and confess that they are getting back to the old type of treatment with the use of very little filter or no filter, and they realize the tremendous change in the cycle of ten years in our conception of some of these things.

The discussion, of course, was tremendously interesting to me, and I am very glad indeed to have the opportunity to see this development from these various viewpoints. (Applause.)

Chairman Sandborn: I understand that Dr. Bellis of Muirdale Sanatorium is present and perhaps can give you some definite information as to how to get out there tomorrow. I will call on Dr. Bellis now to make that announcement.

Dr. Bellis: Mr. Chairman, Ladies and Gentlemen: I wanted to add a word in connection with the announcement of the clinic to be held at Muirdale Sanatorium tomorrow to assure you that this invitation is most cordial. It comes at the instigation of the officials of Milwaukee County and the institution. They want you to see Muirdale Sanatorium, which represents an investment of something around a million dollars. There are 450 beds in this particular unit. They are putting forth every effort to keep in step with the march of progress, both medically and surgically. We want you to see some intensive work that is being done in heliotherapy, also some cases of thoracoplasty, and particularly some work that is being done by Dr. Yates on phrenic nerve block, which, as you know, is a very decisive action on the diaphragm and the blood supply. We have about twenty-five or thirty cases where this operation has been done, and we want you to see these patients and judge for yourselves whether or not you can look forward to more benefit than we have been able to receive by other forms of treatment by the use of this method.

Again I want to assure you that this invitation is most cordial; accept it if you possibly can. Thank you. (Applause.)

Chairman Sandborn: We now come to the closing of the most interesting discussion. I will call on Dr. Beets.

Dr. Beets: I have nothing to add.

Chairman Sandborn: Dr. Bardeen.

Dr. Bardeen: I would like to say a word or two about extending the range of the radiologist. It seems to me perhaps the attention has been focused too much on very high frequency rays that penetrate, and the other end of the spectrum has been too much neglected. I wonder if radiologists and physicians in general ought not to think of radiology over a wider spectrum.

This method they have referred to this morning in the treatment of breast cancer by unfiltered rays is a step in that direction. Of course, the softer x rays physicians have worked at least; the radiologists have neglected them and crossed over to the ultra-violet rays that go most rapidly. One of the interesting papers in this meeting of the State Society was that of Dr. Steenbock on the effects of ultra-violet rays on animals, and how wonderful that is you can see where he pointed out that rats fed on meat that was exposed to ultra violet light or the ultra-violet rays in sunlight thrived, while those fed on meat that wasn't thus exposed didn't thrive. The ultra-violet rays don't penetrate much, but on the surface they do something that makes profound effects.

If we go up beyond the ultra-violet part of the general spectrum to the light part, we get another field that the radiologist ought to think of as a part of his equipment. Beyond that there are still longer rays or waves, the intra-red, and we get the effects of heat. Murphy found that they were effective in healing up mice for greater resistance to implantation of cancer from other mice, in fact greater than any kind of x-ray treatment could produce. So it seems to me that we have got to think in broader terms than we have been thinking and not think all the time of the wave length of a hundredth of an Angstrom unit, but we have got to think of a longer wave length and think of the individual in relation to a really tremendous spectrum. As we learn more we find some parts of the spectrum are more effective than others in therapy. (Applause.)

Chairman Sandborn: Dr. Portmann.

Dr. Portmann: Mr. Chairman, I don't want to appear to be depressed about this situation of radiation therapy at all, but I am critical about certain methods that have been adopted recently, and I feel that simply because the radiologist can purchase a high voltage apparatus and a piece of thick copper and go to work, he shouldn't attempt to treat all sorts of diseases in exactly the same fashion. As Dr. Potter pointed out, the leukemias and Hodgkin's disease certainly shouldn't be treated as carcinoma of the cervix. I used cancer of the breast simply to point out the difference in the effect of radiation upon two different types of disease, one in which we get a beneficial effect, and one in which we don't get such a good effect.

This cancer situation has been taken up within the last few years and is of prime importance. Surgeons have kidded themselves for a long time and now they tell us, the radiologists, that we are kidding ourselves; perhaps we are kidding each other, but when it comes to cancer of the breast from a surgical standpoint, statistics may not mean anything. The average case of cancer of the breast lives three years, and that is true that the average case of cancer of the breast lives three years untreated. One case may die in six months, but there are cases on record living twenty-two years with cancer of the breast. We have one living sixteen years with cancer of the breast. The patient refused treatment.

Now, then, the surgeons won't claim any more than from thirty-eight to forty per cent of three-year cures of cancer of the breast when thirty per cent of the cases live three years untreated. That is the average. For five years twenty-eight to thirty per cent of surgical cases live five years, and some of these cases come back with recurrence of metastasis as long as twenty years; I have seen one twenty-one years after removal of cancer. So we might just as well not kid ourselves about the treatment of cancer and try to work out these problems and admit our failures.

I was gloriously jumped upon for admitting our failure in intensive radiation of cancer of the breast, when I reported recently, by radiologists, and particularly by one or two surgeons. However, I feel that we should admit these things and perhaps point out the fact that we must go a little bit further in our investigation, perhaps investigating such of the longer waves as Dr. Bardeen suggests, but I don't want to appear depressed about the situation. I think we have in deep therapy one of the most valuable accessories to our therapy that has come out in a great many years. I just want to leave the impression with you that after all we just simply have to keep at it. (Applause.)

Chairman Sandborn: Dr. Jones.

Dr. Jones: Just to answer Dr. Churchill. The cases that were cited, of course, were cases living and free from disease. On cases that died, no time of their duration of life was stated at all. Those cases were living.

Chairman Sandborn: I feel that this section has

been very, very fortunate in all of its program material. We want to say to you men who are not radiologists and attended this section that we are really surprised that there are so many of you. We are glad that you came and we hope you will come to the session this afternoon. We do feel that it was not in vain that we radiologists asked for a session. We are certainly grateful to the powers that be for granting us this session.

The Influenza Epidemic of 1920*

BY WILLIAM S. MIDDLETON, M.D.,

Madison.

The recurrence of an influenzal outbreak of almost pandemic proportions in the past few weeks leads to the recital of the particulars of the epidemic of 1920, as observed in the student body of the University of Wisconsin. The present group of cases bears but an incomplete resemblance to the earlier picture. However, the immediate prostration, the early lack of localizing signs, the racking cough and the leucopenia are in distinct agreement with the outstanding features of the cases of 1920. Apparently to date there has been a decided discrepancy in the number and the severity of the pulmonary complications as compared with the previous epidemics. The mortality figures are likewise decidedly lower. As a matter of record, therefore, these data relative to the epidemic of 1920 are presented. The two hundred and twenty cases herein analyzed represent only that group of the student body who were admitted to the Student Infirmary and the Bradley Memorial Hospital. Obviously they constituted the more seriously affected; but no effort has been made statistically or otherwise to correlate this group with the general student population nor with the city of Madison at large.

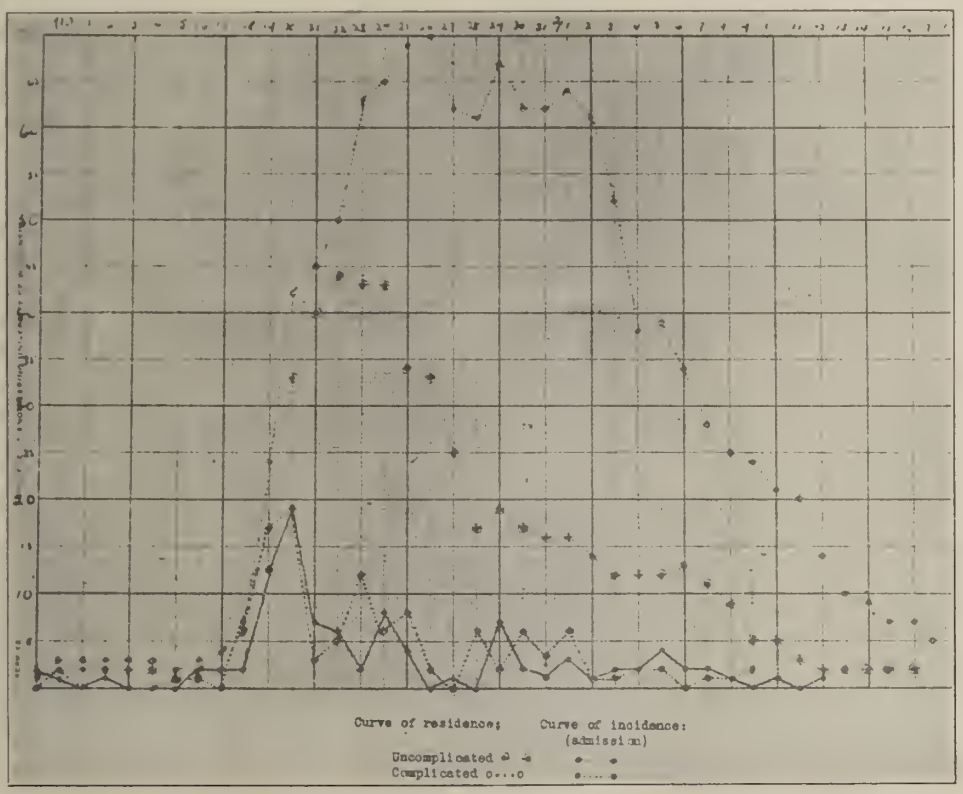

FIGURE I.

The earliest cases of influenza among the students in 1920 were reported at an interval of several weeks following the announcement of its reappearance in an epidemic form in the East.

A glance at Figure I will show that the period immediately preceding the frank outbreak of January 19th, was one of rather striking inactivity.

*From the Department of Medicine, University of Wisconsin.

Admissions jumped from eight on January 18th to twenty-nine on the 19th, and on the 20th, thirty-eight new cases of influenza were admitted. (The graphs have been plotted, separating the complicated and the uncomplicated cases, in an attempt to trace the time and frequency of their appearance). By January 25th the number of new cases had fallen to twelve and thereafter with slight deviations the curve subsided regularly, only occasional fresh cases appearing after February 6th. The curves of residence constitute an interesting study. In total there was a sharp rise on the 20th of January to 75. The curve ascended promptly to 85 on the 21st, 94 on the 22nd, 106 on the 23rd, and 108 on the 24th. This was the high water mark and thereafter a census of 103 was maintained for two days, followed by a fall to 87 on January 27th. On analysis of these figures and graphs it becomes apparent that a widely operative infecting organism attacked a high percentage of the susceptibles exposed in a surprisingly short period. There was the primary sharp rise in incidence without subsequent recrudescences of importance; nor was there appreciable divergence in the curves in the two clinical types. As would be anticipated the curve of residence (total) was sustained by the more protracted hospitalization of the complicated cases.

TABLE I.

Uncomplicated—109 cases; Complicated—85 cases.

	Uncomplicated	*Complicated*
Onset		
Gradual	96 (88%)	71 (83.5%)
Sudden	13 (11.9%)	14 (16.4%)
Subjective:		
Rigor	41 (37.6%)	42 (49.4%)
Chill	6 (5.5%)	9 (10.5%)
Headache	61 (55.9%)	50 (58.8%)
General aches	54 (49.5%)	43 (50.5%)
Malaise	26 (23.8%)	19 (22.3%)
Weakness	17 (15.5%)	11 (12.9%)
Vertigo	5 (4.5%)	6 (7.6%)
Faint	2 (1.8%)	1 (1.1%)
Sore Throat	25 (22.9%)	24 (28.2%)
Nausea	10 (9.1%)	11 (12.9%)
Vomiting	8 (7.3%)	7 (8.2%)
Epistaxis	2 (1.8%)	7 (8.2%)
Objective:		
Cyanosis	1 (0.9%)	12 (14.1%)
Herpes	4 (3.6%)	5 (5.8%)

The histories of 194 of the total 220 cases were available for an analysis of the symptomatology on admission. In Table I these factors have been considered.

In few details of the history are there points of divergence between the complicated and the uncomplicated cases. In the manner of onset there was no difference noted. Rigor and chills initiated the complicated more commonly than the simple cases. Significant of course was the occurrence of cyanosis and of epistaxis more frequently in the complicated group.

It is not proposed to discuss the clinical course of influenza in any detail. However, the studies of 1920 led us to make an arbitrary division between the various types of cases. In Table II this distribution has been effected together with an inquiry into the occurrence of previous attacks of influenza.

TABLE II.

	Cases		History of previous attack No.	%
I. Mild	77		17	22
II. Remissions	20		4	20
III. Moderate without remissions	3		0	
Chest Complications	109			
IV. Bronchitis: mild course	32	36	4	13.8
moderate course	4		1 ?	
V. Patch: mild course	11	31	1	6.0
moderate course	18		1	
severe course	2		0	
Distribution: Left 17: Right 13: Both 1.				
VI. Pneumonia	36	42	4 ?	11.9
Probable	6		1	
Distribution: Left 12: Right 14: Both 16.				
VII. Miscellaneous complications:				
Bradycardia	2*		0	
Nervous signs	3		0	
Abdominal signs	2*		0	
Otitis media	4*		0	
Grand total	220		History of flu Total 33 - 15 %	

*Included in other groups are additional cases with these complications: Otitis media 4 cases.
Bradycardia 1 case.

A word in explanation of the term "patch" is required. When there were determined impairment to percussion, decreased voice and air transmission with or without rales, this designation was applied. A vast majority of such cases represented broncho-pneumonic patches, but the inability to establish a consolidation beyond equivocation constituted the basis for their separate consideration. In the present relation the high incidence of bronchial and pulmonary involvement (19.5% of the 220 cases) in 1920 is noteworthy. Significant also is the indirect evidence of a relative immunity conferred by a previous attack of

influenza, since only 15% of the cases studied had had previous attacks of the disease.

Composite temperature charts have been graphed for each of the types considered; and because of the unusual character of the remission and the complicating broncho-pneumonia of influenza separate clinical charts of type cases are included (Figures II, III, IV, V, VI, VII and VIII). These curves need no explanation.

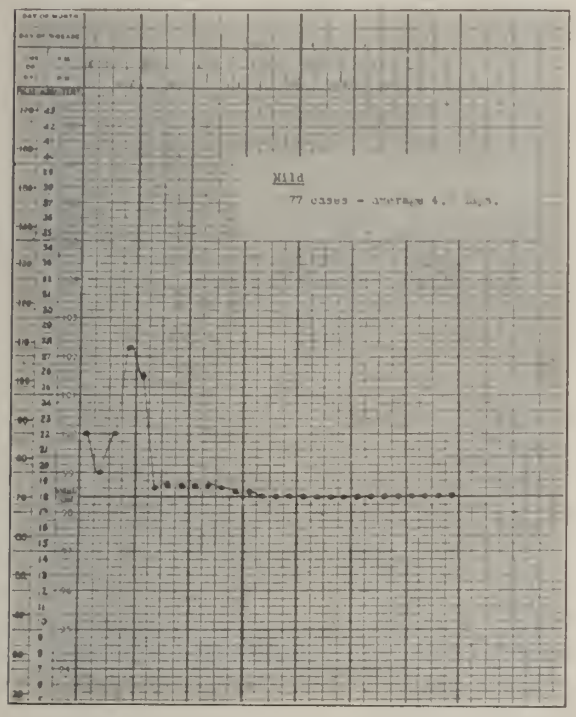

Figure II—Composite temperature chart of the mild group of influenza cases.

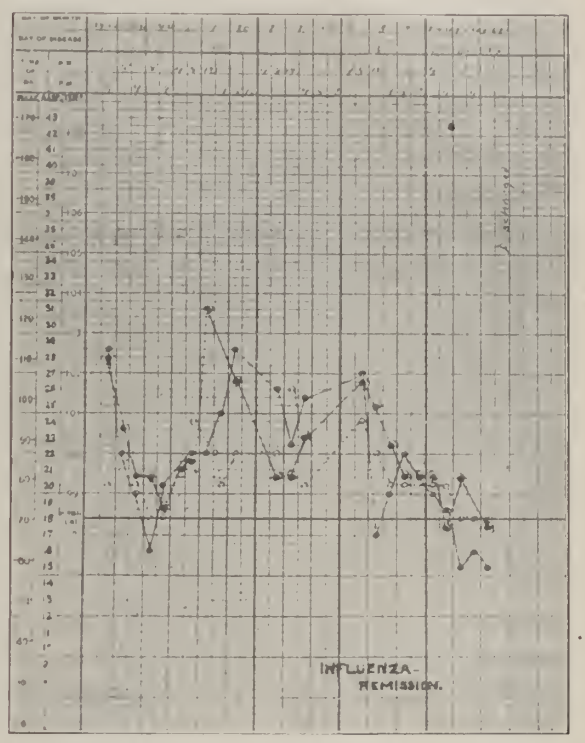

Figure IV—Clinical chart. Characteristic influenza with remission.

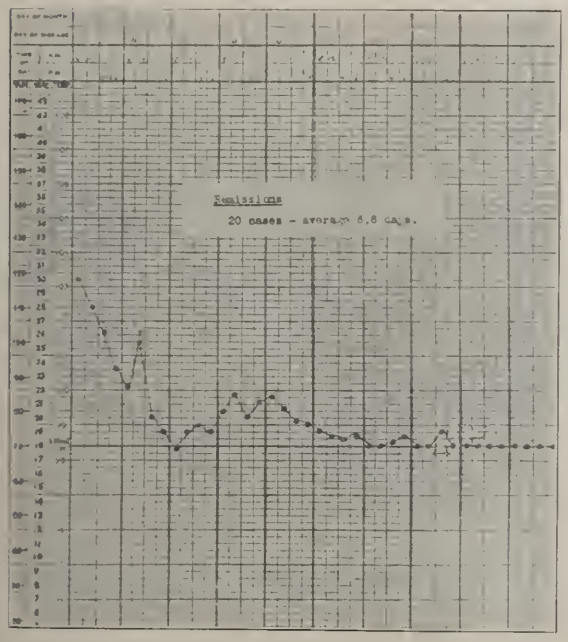

Figure III—Composite temperature chart. Influenza with remissions.

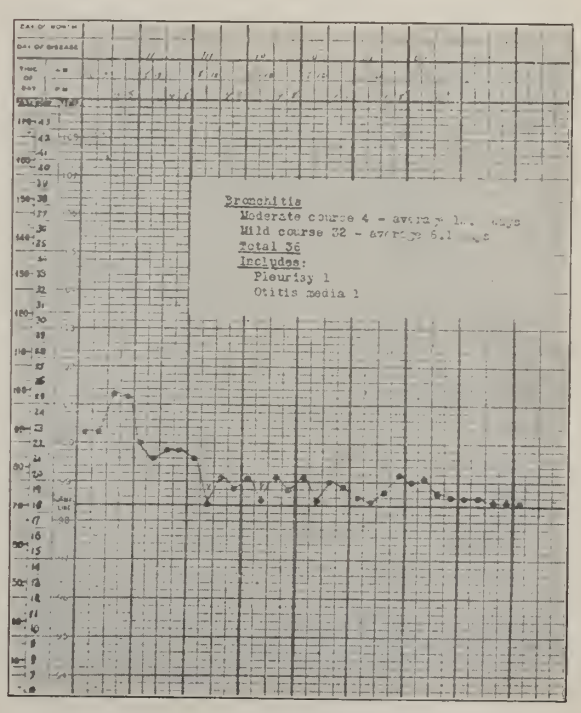

Figure V—Composite temperature chart. Influenza with bronchitis.

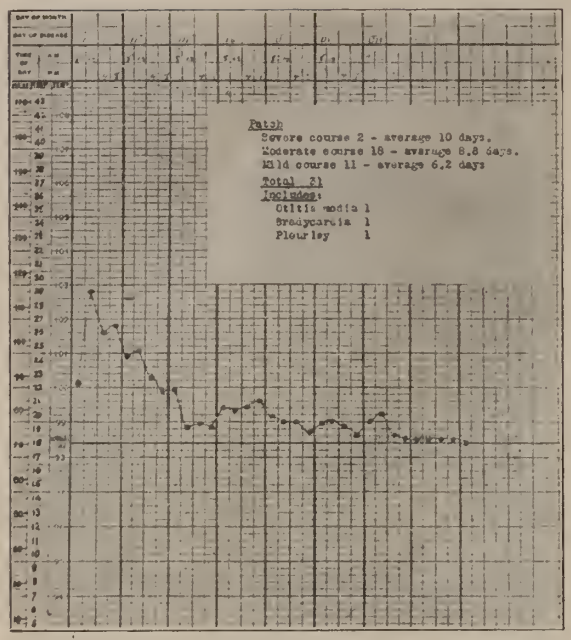

Figure VI. Composite temperature chart. Influenza with "patch".

The pulmonary complications were so important in the epidemic of 1920 as to render radiologic studies of paramount importance. In addition to the stereoscopic studies reviewed in Table III, all cases in which chest involvement was supected, were subjected to bedside fluoroscopy. These investigations were important not only in diagnosis, but also in the study of the progression and resolution of pneumonia.

These brief observations are offered as a basis

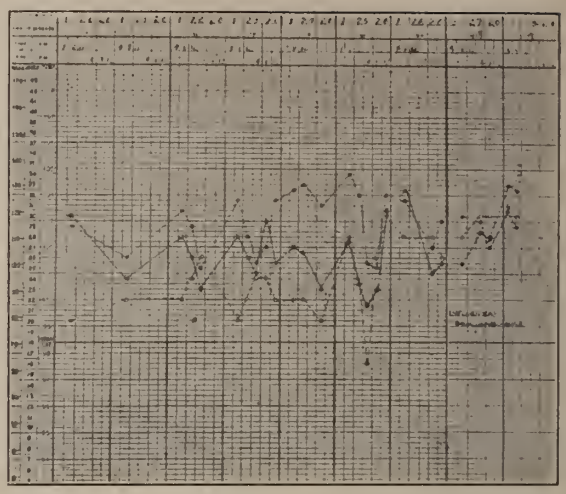

Figure VIII—Clinical chart. Fatal case of influenzal broncho-pneumonia.

for comparison with the current epidemic of influenza. The virulence of the disease in 1920 was greatly reduced over that of 1918. Twelve deaths (5.4%) occurred in this group (1920); and as previously indicated, the group of cases under study was not a cross section of the epidemic of 1920 among the students but rather a selected, more seriously affected group. Hence this mortality rate is inordinately high. The present epidemic apparently differs from that of 1920 not only in the lowered mortality but also in the relatively infrequent occurrence of pneumonic complications.

NOTE—Acknowledgment is herewith made for the continued cooperation of Drs. J. A. E. Eyster, Howard Curl and C. E. Zellmer in this study.

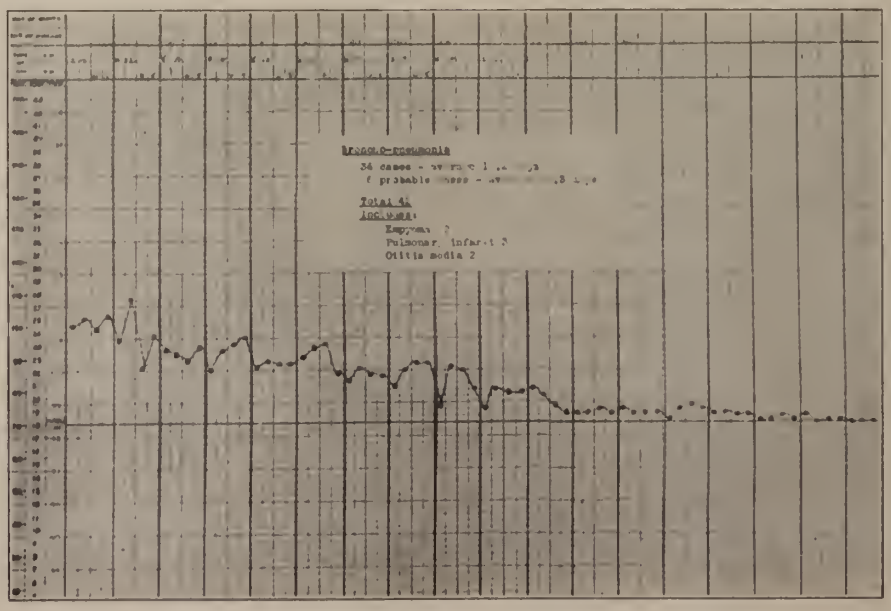

Figure VII—Composite temperature chart. Influenza with broncho-pneumonia.

TABLE III.

Stereoscopic Examination

A - Corroborative of physical examination:

1. Negative - 5 cases.
2. Bronchitis - peribronchitis - 6 cases.
3. Patch - circumscribed patch - 3 cases.
4. Broncho-pneumonia - 16 cases.

Total - 30 cases.

B - Varying in interpretation:

Clinical	Stereoscopic
1. Patch	Peribronchitis - 5 cases.
2. Patch	Broncho-pneumonia - 4 cases
3. Bronchitis	Broncho-pneumonia - 1 case.

Total - 10 cases.

C - Incorrect diagnoses:

Clinical	Stereoscopic
1. Negative	Peribronchitis - 7 cases.
2. Negative	Pleural thickening - 1 case
3. Patch	Negative - 1 case.
4. Patch	Pleural thickening - 2 cases

Total - 11 cases.

Grand total - 51 cases.

METHOD OF SURGICAL DIATHERMY OR ENDOTHERMY

Sinclair Tousey, New York (Journal A. M. A., Feb. 20, 1926), uses a needle electrode and eliminates the pain by limiting the current to the part closely in contact with the electrode by applying a metallic conductor to a nearby part of the growth or even to its pedicle if it is pedunculated or can be pinched up into such a shape. The current then passes from the needle electrode through the neighboring part of the growth to the metal conductor and so to the ground or to the operator's body. The simplest way is for the operator, an assistant or the patient to hold a pair of thin, curved forceps which grasp the pedicle or which embrace a small part of the growth if it is a flat one. No conducting wire need be attached to the forceps. The needle point may make contact with the growth, or the sparks may pass from it to parts of the growth embraced by the forceps or to the forceps themselves without pain or shock to the patient. Aside from the absence of pain, the ability to proceed deliberately to destroy just the right amount of tissue is a great advantage. As fast as the tissue is killed, it becomes insensitive; and the device completely protects vital portions from the current. In bipolar electrocoagulation by the method described, the needle electrode is connected with one terminal of the d'Arsonval high frequency apparatus, and the baffle is connected with the other pole. They are applied to different parts of the growth to be destroyed in the same way as are the monopolar needle and the baffle. In superficial conditions, the method is said to be an improvement on the ordinary electrodesiccation, because it is painless, requires no anesthetic, and as the patient is quiescent, the procedure may be careful and just the desired amount of tissue destroyed. It is preferable to the bipolar method or electrocoagulation, because the latter is very painful and the extent to which deeper tissues are devitalized, even fascia, periosteum or bone, is always uncertain. In deeper conditions, it has the same advantage as in the superficial and renders local anesthesia really effective.

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

Obesity: Endocrine or Dietary

BY ELMER L. SEVRINGHAUS, M.D.,
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Madison.

Obesity is properly a symptom of several disorders. The excess tissue must necessarily be constructed out of some of the food substances, and hence obesity is a symptom of one or more metabolic disorders. There is quite certainly a relationship between the underfunction of the pituitary gland and the type of obesity which is known as Froehlich's syndrome. This is, however, a relatively uncommon type. In myxedema there is excess tissue and the patient is overweight, but this is not due to fat, and the condition must not be called obesity. There are many circumstances which hint that the commoner types of obesity are dependent on disturbances in the regulation of metabolism by the glands of internal secretion. The rapid changes in fatty deposition at puberty and the menopause, in pregnancy and in eunuchism, all warrant us in assuming that the gonads are of importance. Again, the marked tendency of obesity to run in families suggests that there is something more than merely overeating which is concerned. Nevertheless, we must recognize after all that these are broad generalizations. There is little that can be done about these matters by the clinician who desires clean cut results. The use of pituitary extract has been found valuable in some cases of Froehlich's syndrome. It cannot be considered justifiable to extend the present vogue of trying a variety of glands as possible therapeutic aids in fat reduction. Since this is hunting in the dark there is great danger of shooting at one mark and hitting another. Although such a process may turn out well, there are some internal secretions which are too dangerous to be trifled with. The thyroid is certainly one of these. Another danger which is equally important in the long run, is that the physician will try first one, then another gland extract, making no sound observations about the value of any one, yet deluding himself into a belief that he is investigating a new field. Clinical research is of utmost importance to the progress of medicine, and in no field is it more necessary than in the study of the endocrines. But it must be done in a systematic way, and the

effects of any one type of treatment must be compared with an identical regimé which is different only in lacking that treatment. It is a rare medical practitioner outside an institution who can afford to carry on such studies. Therefore, it becomes necessary to meet the problem of obesity in a concrete and immediately practical way. It is granted at the outset that the fundamental cause of obesity is not being attacked in many cases. But obesity is in itself a serious enough condition to warrant the attention of the physician.

All fat people are fat because they have eaten more food than their bodies needed. This statement seems dogmatic, but it must apply if the laws of the conservation of energy and matter are true. There is no denying that some fat people eat little, and that some lean people are voracious. To get an understanding of the matter we must examine the chief sources of energy for the body and the principal avenues for the expenditure of energy by the body. The proteins are essential to life for at least three reasons. They provide the material for the growth of the protoplasm of the body cells. They provide the material for the replacement of the wear and tear on body cells which is going on continuously, entirely independent of work. Those internal secretions which are known even in part are so closely related to the amino acids, of which proteins are made up, that these internal secretions could only be made by the body from protein. Obviously then it is not permissable to place an individual on a diet which will fail to yield adequate amounts of protein for these needs. Large amounts of protein are unnecessary, especially for adults. One hundred grams daily of good protein is undoubtedly in excess of the requirements of any adult. Any excess protein is used by the body as so much carbohydrate and fat, namely as a source of energy. It is both financially and physiologically expensive, hence to be avoided, save as we indulge in the foods we like best.

Carbohydrates and fats are used by the body as sources of energy, and the excess is stored as fat for later use, or as a mechanical protection against injury and cold. The carbohydrates form the main part of the energy yielding food for many people, hence the injunction to eat the starches if weight reduction is desired. It is, however, possible to have the fat furnish as much as 75 per cent of the total energy in the diet of an individual doing ordinary work, with perfect safety and palatability. Greater amounts of fat than this are seldom justifiable because of the inability of the body to oxidize fat completely without the simultaneous oxidation of sugar. When fat is burned in the body we consider that it is broken down into its constituents, fatty acids and glycerol. The glycerol is oxidized in much the same way as sugar, that is with the aid of insulin. The fatty acids are entirely different. Their molecules are comparatively large. In the process of their oxidation carbon dioxide and water are produced as the molecules are being decomposed, until there is a residue known as diacetic acid. This diacetic acid cannot be oxidized except in the immediate presence of glucose which is being simultaneously oxidized. In this latter case, which is the normal occurrence, carbon dioxide and water are produced from both the glucose and the diacetic acid, and the combustion is completed in such a fashion that the final or waste products are readily eliminated by the lungs and kidneys. If, however, there is an insufficient amount of glucose undergoing oxidation part of the diacetic acid will remain unoxidized. and some of the body's reserve of alkali is con- It then becomes a toxic material due to its acidity, sumed to neutralize it and protect the body from lates in the body a portion of it spontaneously decomposes into acetone. which is excreted by the lungs and kidneys. Acetone is at least mildly toxic on its own account. Also the body is able to change the diacetic acid to beta hydroxy-butyric acid, which is no less toxic than the diacetic acid. This, like the diacetic acid, uses up alkali to become neutralized. Eventually both these abnormal acids are excreted via the kidneys, but in the process they will carry along some of the alkali. There is thus a depletion of the alkali reserve in the body. The process of formation of these abnormal decomposition products from fatty acids is known as ketosis, because the three compounds are known to chemists as "ketone bodies." The ketosis may lead to acidosis if it is severe enough and long enough continued. The process is the same, whether it occurs in fasting, fevers, or diabetes. In the first two conditions there is a lack of carbohydrate due to lowered intake. In diabetes there is inability to burn carbohydrate in adequate amounts even though it be present.

The importance of protein and of carbohydrate has been developed at length because rational and

FIGURE 1.
307 Calorie Breakfast: Orange, one-half; toast, one slice; jelly, one tablespoonful; egg, one; skimmed milk, one-half glass; coffee.

safe reduction of excess weight cannot be done without a knowledge of these matters. Many American women are trying it today, and are coming to grief in digestive disturbances, nervous conditions, and physical weakness. It is the uniform experience of those who have observed the rules which grow out of these principles above stated, that the process of weight reduction is accompanied by an increased vigor and no impairment of health. The essence of the reducing diet is that ordinary amounts of protein are used but the fat of the diet is greatly reduced. The carbohydrate intake is maintained at a level well above that which will prevent ketosis. The total food intake, in terms of calories, is well below the expenditure of energy. Under these conditions body fat is drawn on as an important source of energy, and excess weight is used up. It makes little, if any, difference whether the body oxidizes food fat or body fat, save in the matter of weight.

It is imperative to pause for a few moments to consider the other foods, even though they do not yield energy in the body. The mineral salts are essential to life and growth. They are to be secured from the green vegetables and the fruits especially. Milk is an important source of calcium and phosphorus. Iodine is now classed as a requisite in the diet, and in those regions where endemic goiter occurs, it must be added. This is most conveniently done by the use of iodized salt for all household use. In planning any diet these minerals must be provided.

The five vitamines now recognized must be included in any diet regimé that is to be used for more than a few days. The use of the bulky and green vegetables and the fruits will provide this if their use is abundant. The restrictions of butter and cream makes this especially important for the fat soluble vitamins, A and D.

Water is a necessary part of our food system. There is only one good reason to restrict the use of water in the reducing diet. That is the tendency of most of us to wash down food with water, thereby reviving the appetite and so increasing the amount of food consumed. If the diet program which I shall describe is used, then water may be used ad libitum. Most persons need to be taught to drink more water.

There are two reasons why the diet must contain bulky and indigestible matter. For every one there must be a certain amount of soft material which will swell up with water to form a stool that can readily be moved through the intestine. This is one of the greatest factors in the treatment of the commoner types of constipation. Herein lies much of the success of vegetable and fruit diet for constipation. This is the reason for the use of bran in our foods today. Of course, it

FIGURE 2.
545 Calorie Dinner: Steak, three ounces; baked potato, one medium; lettuce; tomato, one medium; mineral oil dressing; spinach, one portion; baked apple, one medium; coffee.

can be overdone, to the point of irritation or even of constipation from too large a mass of this indigestible food. But most fat people are constipated, and this factor is doubly important for them. A second value to the person who is reducing weight is that these bulky foods have relatively little energy content, but they satisfy hunger because they fill the stomach. The green vegetables are therefore most useful in the reducing diet.

The other half of the picture is the group of body functions which expend energy and therefore use up foods. There are three of major importance. First in the basal metabolism. This includes the work done in breathing and in circulating the blood when the body is at rest. It embraces also all those processes which make up the continuous life of the body cells, and which keep the body warm under ordinary conditions. The tonus of muscles is in this latter category. This basal metabolism is a very constant thing, in the same sense that temperature and pulse rate are constant. It is under the regulation of the internal secretion of the thyroid gland. The individual suffering from hyperthyroidism has a high basal metabolism, and hence has to consume an unusually high ration as fuel to produce the energy. For some years it was the custom to assist in reducing weight by administering thyroid substance. We have now come to recognize that this is no longer good medicine. It is frankly the production of an intoxication to hasten the loss of weight. No man who understands the pathological processes which make up the sequence of hyperthyroidism would allow this to be used on himself. Any scheme of reducing which employs thyroid medication is permissible for only those patients who have a demonstrable lack of the thyroid secretion in addition to excessive weight.

A second outlet for energy is the stimulation of heat production by foods, called specific dynamic action. This usually amounts to 10 per cent of the basal metabolism. To increase this heat loss we must increase the food. The means would, therefore, defeat the purpose. The third outlet for energy is physical exercise. The actual energy loss may easily go to twice the basal metabolism by exercise that is not beyond any of us. It may be only 20 per cent more than the basal metabolism. The variability of this factor is of great importance for reducing excess weight. The essence of reducing is therefore to eat less and exercise more. Some schemes have measured food intake, some measured exercise, and the best schemes both.

It is not infrequently found that fat individuals who live on a strictly limited diet and take usually adequate amounts of exercise lose weight at a discouragingly slow pace. The reasons for this

FIGURE 3.
365 Calorie Supper: Consomme; crackers, two; cold roast veal, two ounces; lettuce; cottage cheese, one ounce; mineral oil dressing; bread, one-half slice; milk, one glass; strawberries, three ounces; sugar, one teaspoonful.

atypical response to the regimé are not clear. In this connection it is interesting to note that patients who suffer from hyperthyroidism exhibit a diminished muscular efficiency. It may be that these atypical fat persons are exceptionally efficient muscular machines. They would therefore be able to do more work on a given amount of food than most of us, because there is less wastage. This is purely speculative but it is a possible enough explanation. The conduct of these atypical fat persons does not in any way vitiate the principles which have been applied to treatment of obesity. Most persons who are unable to reduce weight fail to obey the rules. Candy, ice cream, and other apparently harmless or "light" lunches may make all the difference between success and failure.

The success which will be attained in reducing excess weight is in proportion to the accuracy with which the patient will obey instructions. Definiteness of prescription is important. Therefore, the physician must write a diet prescription calling for a certain amount of calories daily, to be secured from a measured amount of protein, carbohydrate, and fat. This is very much like the handling of diabetes, except that the leeway given the patient for variation is greater. The patient will rarely be successful unless food is actually measured, at least until the eye and the fingers learn to measure subconsciously. The simplest method for the physician is to recommend a definite diet manual. The shorter books for diabetic patients are useful. They have the double advantage that the physician need not familiarize himself with two books. If a book is desired which treats only of the reducing process, none can be compared with "Diet and Health, With Key to the Calories," by Dr. L. H. Peters, published by Reilly and Lee, Chicago.

The great majority of patients can be reduced very satisfactorily by the use of a 1200 calorie diet. This daily total allows of plenty of bulk to satisfy hunger, plenty of protein for maintenance (at least 60 grams), plenty of carbohydrate to avoid ketosis (about 150 grams) and adequate amounts of minerals and vitamins. The diet can be made very appetizing. With a diet at this level, planned by a dietician who appreciates tastes as well as food values, patients are always surprised at the amounts of food they may eat. The illustrations of the three meals which comprise a typical 1200 calorie diet will give some idea of the satisfaction which can be expected. The list of foods for each of the trays is self explanatory in the main. The amounts of coffee and lettuce are not specified, because they may be used ad libitum. The mineral oil dressing is the same as that used for diabetics. It is a sort of a mayonnaise dress-

ing made with mineral oil instead of vegetable or olive oil. Since it has almost no nutritive value, it may be used ad libitum. It will be obvious that very many substitutions can be made in this diet, using other meats, vegetables, and fruits which have approximately the same composition. Here the diet books and tables for the diabetic are useful. Variety is easily secured. Coffee is entirely optional. Tea may be substituted for it. Coffee may be used as often as desired. The same may be said of clear, fat-free bròth or of boullion, since there is no appreciable calorie value to them.

It is not safe for laymen to try this sort of a reducing program without advice from the physician. First of all, it must be established that there is need for reducing. At present every girl who is well developed wants to be thinner. This is obviously not desirable from the medical standpoint. Reduction should not be allowed to proceed too rapidly. If it does so, the patient will not feel well. This is probably because the protein supply is below the loss of body protein. Also, too rapid loss will lead to loose skin, and wrinkles are undesirable. If the weight loss is controlled, the skin will accommodate itself to the smaller body. The maximum weight loss permitted is about 3 pounds weekly. Sometimes the first week will show a loss of 5 pounds. It is difficult to maintain even as great a loss as 3 pounds weekly if the above diet is followed, unless exercise is excessive. The exercise program is not so readily prescribed in general. Each case must be a law to itself, but the law must be laid down and strictly observed. There should be a prescription for exercise as for diet. If the medical profession is to do its best to prevent chronic diseases, obesity must be treated as a disease, not a laughing matter. We can say without fear of any contradiction that the prevention and removal of obesity are important factors in the prevention and in the treatment of diabetes, chronic heart and vascular disease, and in the disabling postural conditions of middle life and later, especially in women.

THE JOURNAL CLINIC

Acute Lymphatic Leukaemia, a Case Report

BY R. L. GILMAN, M.D.
The Clinic
Ashland

Acute leukaemia, while unusual at any age, is even less common in early childhood. Though more frequently occurring in the male at the adult age, the relation is reversed in early years and the young female child more often is the subject.

The following case is presented as a typical clinical picture somewhat obscured by the low leukocytosis. The differential diagnosis is not always easily made, and although present treatment appears futile, earlier recognition of acute leukaemia makes for a recognized course and prognosis.

Case. D.S.—Age 3 years, a girl admitted to the medical service of the Ashland General Hospital, January 11, 1926.

C. C. Swollen glands and weakness.

H. P. I. About three months ago (November 1, 1925) the parents noticed a persistent distension of the abdomen. At that time there was a moderate amount of pallor and some slight apathy. A physician was not consulted until the middle of December at which time the glands at the angle of either jaw became swollen and the patient resembled a case of mumps. The child was treated at her home but the glandular condition persisted; the child became weaker, her color poorer, and the distension of the abdomen was unrelieved. A week or so prior to her admission the patient became markedly constipated, the appetite failed, and all her symptoms were aggravated; and in addition the child developed a moderate dyspnoea. There was apparently little if any fever during this time. Three days before admission the child vomited at intervals. There was no history of any mouth infection.

P. M. H. There is no record of any previous illnesses.

S. H. The child's parents appear intelligent and cooperative but of very limited financial means. The diet appears to have been good save for a superabundance of meat.

F. H. No relevant material could be elicited.

Physical Examination. The patient is a well developed and well nourished child of three years. Her color is an ivory pallor, there is a slight oedema of both ankles, and a bilateral enlargement of the glands of the neck in the region of the angle of the jaw and below the ear. Her general reactions are apathetic save for the

breathing which is labored and rapid. Head and Neck: there is a marked accumulation of sordes on the tongue and teeth. The throat appears normal. The glands mentioned above are not particularly tender, but are discreet in outline. Her listless expression and contour of face suggest a cretinoid appearance. Heart: the rate is rapid, the sounds unaccentuated. There are no murmurs nor arrhythmias. There is no demonstrable heart enlargement. Lungs: the percussion note is clear. Auscultation reveals no pathology. Abdomen: is markedly distended and tense. The splenic dullness extends three fingers breadth below the costal margin. No other masses palpable. No areas of tenderness. There is some enlargement of the inguinal lymph glands on both sides. Extremities: no findings beyond the oedema mentioned and a moderate amount of wasting.

Clinical Data on Admission. January 11, 1926. Rectal temperature 99, pulse 132, respirations 42, urine—straw colored, S. G. 1.020, acid, faint tr. albumen, blood—Hb. 70%, R. B. C. 3,600,000, W. B. C. 16,000, differential count—P. M. N.'s 35%, lymphocytes 65%.

Diagnosis. Undetermined. Impression, (1) The bilateral parotitis appears metastatic and secondary to a previous obscure stomatitis or pharyngeal infection. Actual focus is not demonstrable. (2) A resultant cachexia from the prolonged infection.

Progress Notes. Second day—radium applied to the glands of the neck, 25 mgs. to each side for three hours. Medical treatment included enemata, mouth washes, calcium-iodine in tablet form, and small doses of thyroid extract.

Sixth day—reapplication of radium. No marked changes in symptoms.

Eighth day—there is an appreciable diminution in the size of the glands. A roentgenogram taken of the chest region shows no enlarged thymus, but throughout the posterior mediastinum are shadows suggestive of a marked hyperplasia of the lymphoid structures. The spleen shows a further increase in size.

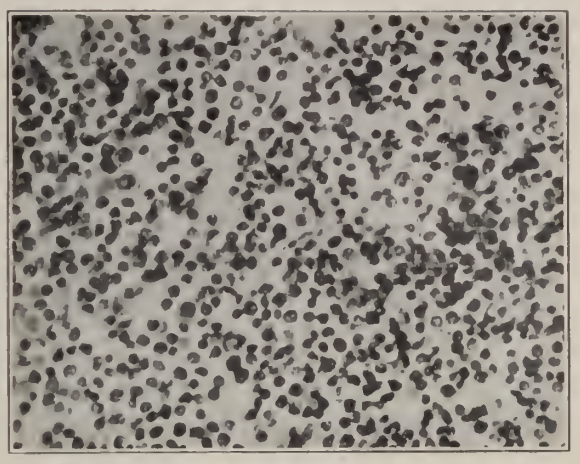
Blood count—Hb. 35%, R. B. C. 2,500,000, W. B. C. 16,800, differential count, P. M. N.'s 20%, lymphocytes 80%.

Diagnosis suggests one of the following: (a) Pseudo-leukaemic anaemia; (b) acute lymphatic leukaemia; (c) spleno-anaemia of von Jaksch. Temperature (ax.) 99.8, pulse 108, respirations 32.

Eleventh day—x-ray treatment over splenic area. Medical treatment directed specifically toward the anaemia.

Sixteenth day—since admission the patient has developed a rapidly progressive anaemia: the spleen has increased in size, the glands of the neck have diminished, the weakness has increased, and there has been bleeding from the gums. Temperature, 100.6, pulse 162, respirations, 42, blood count, Hb. 20%, R. B. C. 1,750,000, W.B. C. 12,300, differential count, P. M. N.'s 20%, lymphocytes 80%.

From this time on until the patient's death on the twenty-fifth hospital day the course was gradual in its progression down-hill. The temperature ranged from



Microphotograph of Section of Bone-Marrow.
Mag. 500X.
Courtesy of Dr. C. H. Bunting.

99.6 to 102. The pulse rate averaged 140. The respiratory rate varied between 35 and 40. The day before death the haemoglobin was reported at 10%, while the red cells were reported uncountable by the technician. A limited autopsy was permitted and a specimen of bone-marrow from the left tibia was sent to Dr. C. H. Bunting who reported, "* * * differentiation of marrow primitive cells into lymphoid cells. Acute lymphatic leukaemia."

COMMENT

The majority of observers contend that the mouth and throat furnish the most logical primary focus. Anders[1] particularly emphasizes stomatitis as an etiological factor. It might be tempting to speculate further on the cause of a condition of present obscure beginning, but the case in point merely follows as a not uncommon type. The insidious onset, particularly the delayed appearance of the cervical adenopathy, sheds no definite light on a primary focus although the condition of the child's mouth on admission to the hospital appears significant. The duration of the case from the facts gathered was approximately 14 weeks. This bears out the findings of previous observers[2] who postulate that all really acute cases terminate under six months.

The dominant symptoms were particularly illuminating. The condition of the mouth and the enlargement of the cervical, mediastinal, and inguinal lymph glands; the grave anaemia, pallor, weakness and emaciation; the distension with dyspnoea, the bleeding from the gums, the splenic enlargement and pyrexia—all being referable to the lymphoid hyperplasia and the general dyscrasia of the blood.

A feature of the case was the choice of diagnoses offered. The clinical picture was not far removed from scurvy, although ruled out by the dietary history. The rapidly progressive anaemia likewise drew our attention from a more thorough consideration of the white count and suggested the possibility of the spleno-anaemia of von Jaksch. In addition the various pseudo and aleukaemic states might have been considered. Finally Mikulicz's disease and Hodgkin's disease had to be ruled out. None of the diagnostic aids were so significant or presented as positive confirmation as did the post-mortem section of the bone-marrow. Without the latter final and convincing proof would have been lacking and the actual diagnosis controversible.

Ordway and Gorham[2] have said, "—the essential point in diagnosis of leukaemia is the hyperplasia of the leukocyte producing tissues and *not* the presence of an excessively high white count, nor the discovery of a certain percentage of abnormal white cells which differentiate it from an ordinary leukocytosis."

The comparatively low leukocyte count, although entirely compatible with the diagnosis, and the relative lymphocyte figures suggest a review of the normal ranges in the white cells of early childhood. Holt[3] gives a variation from 8,000 to 12,000 in the white count with a lymphocytic percentage up to 50 or 60. To determine whether any familial tendency was at work, counts of the patient's family were taken. Except for a mild secondary anaemia the blood counts were irrelevant to the case, i. e., the lymphocytic counts were normal.

BIBLIOGRAPHY

1. Anders: "Practice of Medicine."
2. Oxford System of Loose-Leaf Medicine, Vol. II, Ordway and Gorham.
3. Holt and Howland: "Diseases of Infancy and Childhood."

The Motor Innervation of the Diaphragm*

BY KARL SCHLAEPFER, M.D.
Milwaukee

The classical method of dissecting a nerve to its motor end plates in the muscle with the help of a magnifying glass is today replaced by a simpler surgical method of cutting or resecting for a certain length the nerve in question. Thus the pathway of motor impulses from the spine to the muscle is severed and an increasing atrophy in this muscle follows.

An additional method for the study of the relationship between a given nerve and a muscle is the electric current which, when applied to the nerve, will cause a contraction of the muscle.

The following brief survey will illustrate how these two modern methods were advantageously applied to solve the problem of the motor innervation of the diaphragm still under discussion.

Through a transpleural approach, the left phrenic nerve of two medium-sized dogs was sectioned in its passage over the pericardium. The animals recovered from the operation within 24 hours and remained well until the experiments were terminated after four months and after two years.

The muscular atrophy of the paralyzed left diaphragm present in the one specimen of four months' duration became almost complete in the second specimen, two years after the operation. Only occasional atrophic muscle fibers were encountered just to the left of the midline, and there only in the sternal portion and anterior to the esophagus. Lateral to the esophagus and posterior in the lumbar portion, the diaphragm was completely fibrous in the paralyzed left side. The assumption frequently encountered that muscle fibers from the lumbar portion of one side cross behind the esophagus to the opposite side, therefore, is proved to be incorrect.

In a third experiment on a medium-sized dog, the three lower intercostal nerves of the left side were stimulated with the faradic current after exposure of the whole diaphragm by a long, high intercostal incision and a long mid-line laparotomy wound. The abdominal incision was done to prevent any pressure of the abdominal viscera on the diaphragm from below through contractions of the abdominal muscles. This experiment showed clearly that in dogs the intercostal nerves have no motor fibers running to the diaphragm and that the phrenic is the sole motor nerve, as demonstrated experimentally by the progressive muscular atrophy following section of the phrenic nerve.

*Read before the Milwaukee Neuro-Psychiatric Society, March 25, 1926. Abstract.

BIBLIOGRAPHY

Schlaepfer, Karl: The phrenic as the nerve of motor innervation of the diaphragm, Johns Hopkins Hosp. Bull., 1923, Vol. 34, p. 195.

Schlaepfer, Karl: A further note on the motor innervation of the diaphragm, The Anatomical Record, 1926, Vol. 32, p. 143.

Diagnosis of Case Reported in April

BY L. M. WARFIELD, M.D.

Milwaukee

The diagnosis of the cardiac disease in this patient seemed to be clear when he was first seen several years ago. It was arteriosclerosis of the aorta and insufficiency of the aortic and mitral valves. The interesting question to settle is what caused his blood pressure to fall to values relatively normal in a short period of time. This, as the history shows, was accompanied by symptoms on the part of his heart with no change in the auscultatory findings in the heart.

There are several causes for the more or less sudden drop in high blood pressure cases. During febrile diseases such as typhoid, pneumonia, la grippe, the pressure falls. Vaquez records a case of pneumonia where the pressure fell from 240 to 160 mm., and only gradually returned to nearly its former level during convalescence. The onset of heart failure frequently is accompanied by a large drop in blood pressure. Here, however, the diastolic does not drop to a degree corresponding with the fall in the systolic pressure. Under such circumstances heart failure of serious nature can be accepted. Again in coma of cranial hemorrhage the pressure may fall rather rapidly.

In our patient there was only mild cardiac insufficiency, scarcely enough to account for the large fall in both systolic and diastolic pressure. What other cause could there be? Study of the physical examination casts suspicion upon infection of some kind. There was the peculiar tint to the skin, the rapid pulse, the slight leucocytosis, and the evidence of focal nephritic lesions, albumin, casts and red blood cells in the urine. The combination of these strongly suggested subacute bacterial endocarditis. This was rendered more plausible from the work of Maude Abbott who showed that damaged valves were very susceptible to infection.

Acting upon this suspicion he was put to bed and careful records taken of his temperature. It showed a daily afternoon rise to 100° or 101° with subnormal temperature in the early morning. The cardiac condition did not change except that the pulse became slower.

When he was seen at his home after a week in bed his color was still sallow and the mucous membranes were slightly pale. The blood pressure was 144/56, the pulse regular, 82 to the minute. He had had a transient numbness of the right arm. One day he found he could not flex the right foot or move the toes. However, while voluntary motion was lost the pulse could be felt in both the dorsalis pedis and the tibialis posticus arteries. Stimulation of the sole of the foot caused reflex flexion of the toes. He was in general improved. There were no blood cells in the urine and the albumin and casts had disappeared. No petechial hemorrhages had been or were present.

It seemed that the most probable cause for the fall in blood pressure was due to some infection of the heart valves. This of itself would produce mild cardiac insufficiency. The kind of bacteria was not determined. A blood culture was negative. This does not militate against the diagnosis as it is well-known how difficult it is to grow bacteria from the blood in cases of subacute bacterial endocarditis. Diagnoses are made during life and confirmed at autopsy where several blood cultures have shown no bacterial growth.

The treatment of this case was that known as autohemotherapy. Two or three times a week about 10 c.c. of blood was withdrawn from a vein and injected into the muscles of the thigh or buttock. This has been recommended from time to time. Personally, it seems that the only recommendation is its psychic effect upon the patient. Something definite is being done for him. Naturally he was in bed and attention paid to his food and sleep and intestinal movements.

The patient, however, gradually lost ground. He was transferred to hospital. The temperature was somewhat irregular, occasionally being normal but the pulse was always rapid. He had several attacks of sudden collapse. The

thumb and first finger of the right hand suddenly became weak. He developed typical Cheyne-Stokes respiration and in one of the attacks of collapse he died.

An autopsy was performed by Dr. F. C. Christensen of Racine who reported as follows: Marked arteriosclerosis of the aortic valves with calcification; marked dilatation and lengthening of aorta including the whole arch with extensive arteriosclerosis; verrucose vegetations on the aortic valves; thickening of the mitral valves; dilatation and hypertrophy of heart, especially the left ventricle; small spleen with one small infarct; large arteriosclerotic kidneys, small infarct in one; bilateral hydrothorax; an area of softening in brain on left side just posterior to Island of Reil about 5 cm. in diameter; early localized leptomeningitis.

A Fourth Case for Diagnosis

BY L. M. WARFIELD, M.D.
Milwaukee

In October, 1925, I was asked to see a Mrs. M. S., 31 years old, who was in a hospital in a neighboring city. The history which was given to me by her attending physician was as follows: About six weeks ago she had had some pain in the abdomen which was diagnosed appendicitis by another physician. She did not wish to be operated upon so she called upon the physician with whom I saw her. He did not think it was appendicitis. About this time she began to lose her appetite, to become nervous, to complain of palpitation of the heart, and to become weak. She was also somewhat emotional and passively resistant to her environment. She was taken to a hospital where she was confined strictly to bed.

As a child she had always been well. Menstruation was normal and she had gone through two rather easy confinements. Both children were living and well, one nine, the other six. She had never been ill before. Now, the physician said, she had a pulse which was usually about 140, she had been vomiting after almost every meal and was excessively nervous and emotional. There was no great loss of weight. The eyes were considered to be somewhat prominent. The blood count was: reds, 4,400,000, whites, 6,800, hb. 80% with 40% of mononuclear cells. The basal metabolism was +56%. She had been given Lugol's solution which had seemed to make her definitely worse. About two weeks before she was seen by me she had had ligation of the right superior thyroid artery. This procedure had failed to benefit her general condition. She had constant abdominal pain and pain under the sternum. The urine had shown a trace of albumin on several occasions and a few hyaline casts.

Upon looking at her hospital chart before seeing her it was noted that there was no fever, that the respirations were normal in rate and that while the pulse had been as high as 150 to the minute there were times when it was below 100.

On examination there was a woman about 5 ft. 4 in. lying doubled up in bed on her side. The nutrition was excellent, she had lost no great amount of weight. When she lay on her back and her skin was exposed, it was noted that she had a peculiar sallow, somewhat yellowish tint to the skin. The eyes were not prominent. The pupils reacted normally and were equal. There were no abnormal eye signs. The thyroid was symmetrical, only slightly enlarged. On the right upper pole was a recent healed operative scar. The pulse was rapid, regular, 140 to the minute. Upon raising the arm no axillary hair was seen. She denied that she shaved under the arms. An examination of the pubic hair showed that it, too, was practically void of hair. The question was asked her about her menstruation. She had not menstruated since her six year old child was born. Further she had within the past year gained weight from 125 to 140 lbs., especially around the hips and abdomen. There had been no visual disturbances, no headaches. Mentally there had been no noticeable change except that she performed her household duties in a somewhat listless manner. There seemed no actual weakness. She had lost libido to a noticeable degree.

Further examination revealed no bruit or thrill over the thyroid gland, no tremor of the outstretched fingers. The heart sounds were normal, the heart apex was within the nipple line. The lungs were clear. The abdomen was asymmetri-

cal, prominent in the right half, everywhere painful to pressure. There was slight stiffness of the muscles of the right side and the right kidney seemed slightly enlarged and tender. No masses were felt. The asymmetry seemed due to distention of the colon without obstruction. The reflexes were present and normal. Vaginal examination was painful. The uterus was not freely movable but there was so much resistance to examination that it was impossible to outline the adnexa.

In next month's Journal the case will be discussed fully and a diagnosis will be given.

Abstract of Papers Before University of Wisconsin Medical Society

C. D. LEAKE, EDITOR

PRACTICAL RESULTS IN X-RAY EXAMINATIONS WITH INJECTIONS OF IODIZED OIL

BY J. E. FORESTIER, M.D.
Paris, France

A preparation of poppy seed oil containing 54% iodine in chemical combination has been used in France for many years in connection with the treatment of goiter. It was noted by Sicard and Forestier in 1919 that subcutaneous injections of this iodized oil (which is called LIPIODOL) remained in the tissues for some time and cast a very opaque shadow to X-rays. It occurred to Sicard and Forestier that this material might be used for purposes of X-ray examination of body cavities. Preliminary experimental work indicated the practicability of this idea and clinical studies were at once inaugurated.

The properties of the oil are interesting; it is a clear amber fluid, very much heavier than any of the body fluids. It is non-toxic, even in large amounts, and is absorbed very slowly. The rate of absorption and elimination has been estimated to be about 5 milligrams daily, as shown by the iodine excretion in the urine. The substance is non-irritating and does not provoke foreign body reactions. Histological studies made after the injection of lipiodol in experimental animals, showed some polymorphonuclear infiltration, but the absence of giant cells indicates that no inflammatory or foreign body reaction took place. The purity and freshness of the oil is an important consideration, and if samples are found to be turbid or brown, they should be discarded because of possible dangerous after-effects, which are usually due to free iodine.

Lipiodol has been found to be of great advantage in diagnosis of pulmonary conditions. It may be injected by means of a pulmonary metal catheter, a laryngoscope, or directly by needle into the trachea. The technique of administration is important. From 4 to 8 c.c. of a 3% solution of procaine should be administered before lipiodol in order to prevent coughing reflex and irritation from the instruments. From 20 to 50 c.c. of lipiodol should be injected about five minutes after the local anesthetic. The position of the body should be adjusted so as to permit the lipiodol to flow into the area of the lung on which the X-ray examination is to be made.

The substance casts a very dark shadow and has given valuable information impossible to obtain in other ways in various stages of pulmonary tuberculosis, lung abscess, but particularly in bronchiectasis.

Another interesting feature of the substance in connection with its use in pulmonary diseases is that it is mildly antiseptic and has been noted to promote a healing process. In about a half hour, the local anesthesia passes away and the patient expectorates three-fourths of the material. The rest of the lipiodol remains in the bronchial cavities and is slowly absorbed, the patient meanwhile suffering no pain or inconvenience because of its presence.

Lipiodol has been used with great success in the diagnosis of tumors or obstructions of the spinal canal. The cisterna magna injection of 3 c.c. of lipiodol, with the patient in the sitting position, is followed by the prompt fall of the substance through the spinal canal to the sacral region where it exhibits a radish-shaped appearance upon roentgenography. If there is any obstruction in the canal, the lipiodol will fall as far as the obstruction and stop there. In this way the upper border of the tumor may be very accurately delimited. Inasmuch as the lipiodol will flow through the cerebro-spinal fluid, the position of the patient is important in this type of diagnostic work.

By combining lipiodol with olive oil, a so-called light lipiodol was made which, upon injection into the lumbar region of the spinal canal, would flow upwards. In this way, the lower border of the tumor may also be outlined. It has also been demonstrated that lipiodol may be used for ventriculography, but the technique for this is not yet upon a satisfactory basis.

Lipiodol has been injected into the arteries for the purpose of ascertaining the point of obliteration in gangrene of the limbs, or in thrombosis or embolus. This work was preceded by careful animal experimentation in which it was found that lipiodol passed through the capillaries in various parts of the body without the formation of emboli. In gangrene of the leg, for example, 1 to 2 c.c. of lipiodol are injected into the femoral artery in the region of Scarpa's triangle. The course of the lipiodol should be followed with fluoroscope. This method has distinct advantages over the use of sodium iodide which has been advocated by Dr. Barney Brooks in this country. The lipiodol is not irritating and causes no pain.

In the study of biliary fistulae or wound cavities in various parts of the body, lipiodol has demonstrated its superiority to other agents. It is non-irritating and may be washed out of the cavity following examination.

Finally, it has been used with success in genito-urinary examinations. Injected into the uterine cavity, it is of great service in indicating the patency of the fallopian tubes. If drops of oil escape into the peritoneal cavity, no harmful results follow. It has also been found of value in diagnosing stricture or obstructions of the male genito-urinary tract.

CONCLUSIONS

1. Lipiodol, a chemical combination of iodine with poppyseeed oil, has been used by Sicard and Forestier in over 5,000 roentgenological examinations in France without a single mishap.

2. It is non-toxic, slowly absorbed, and does not provoke a foreign body reaction.

9. It has been used with success in the diagnosis of pulmonary diseases, in the location of tumors of the spinal canal, in locating emboli, thrombi, or obstructions in the arteries of the extremities, and in the diagnosis of genito-urinary conditions.

DISCUSSION

This interesting and valuable contribution of Dr. Forestier was illustrated by a splendid set of lantern slides. It was discussed by Drs. A. S. Crawford, H. H. Reese, F. J. Hodges, C. A. Harper, Jerome Head, and P. M. Dawson. Dr. Crawford pointed out that in France, lipiodol had been used more extensively in diagnosis of pulmonary diseases than in this country, where its use had been almost strictly confined to the location of tumors in the spinal canal. Dr. Reese spoke of some anterior horn irritations as a result of the use of iodipin, a similar German preparation, in tabetic patients.

Jan. 15, 1926.

QUANTITATIVE RELATIONS IN THE PRECIPITIN REACTION

BY H. W. CROMWELL, M.D.

When two or more specific precipitating serums are tested against the same lot of antigen, they all react with the same dilution of the antigen regardless of the strength of the serums, provided a simple antigen is used.

The determination of the point of disappearance of a recognizable precipitate on increasing the dilution of the antigen does not, therefore, give direct evidence as to the strength of the antiserum.

The point of maximum precipitation when a single dilution of the antiserum is tested against the various antigen dilutions represents an approximately equal number of units of antigen and antibody. On the basis of this fact, then, one can calculate the antibody content of the serum with considerable accuracy when, by test, the antigen titer and point of maximum precipitation have been determined with one dilution of the serum. This is true provided a simple antigen is used in the test.

The exact quantitative relations do not obtain when a complex antigen like sheep serum is used. The antigen titer is not constant but varies in a general way with the antibody titer of the serum. The maximum precipitate occupies a whole zone in which it is often impossible to pick out one tube showing heavier flocculation than the others. It is not possible, therefore, to make calculations that would agree even approximately with experimental results.

The neutralization of antigen by its specific antibody in the precipitin reaction seems, like the toxin-antitoxin reaction, to follow the law of multiple proportions. Is it not possible that when further study is made other types of antigen-antibody reactions will be found to follow this same law? March 23, 1926.

EFFECTS OF CARDIAC POSITION ON THE ELECTROCARDIOGRAM

BY ALLEN WILSON, A.M.

Displacements of the heart around its anterior-posterior axis either to the right or the left as carried out experimentally do not give the curves anticipated according to the principle of the Einthoven triangle, or according to the accepted standards for right or left-sided preponderance. The electrical axis may be either increased or decreased or remain the same.

If, when the heart is displaced to the right or the left, a counter-rotation in the opposite direction around its longitudinal axis is brought about, the curves approach those of right and left-sided preponderance, the electrical angle regularly increasing or decreasing as it should.

It is evident that the effects of mere displacement have been masked by rotation on the longitudinal axis. In proof of this it is found that, if the heart is held in its normal position and then rotated on its longitudinal axis, typical curves of right or left-sided preponderance may be produced.

Either uncomplicated rotation to the right on the antero-posterior axis or rotation to the left on the longitudinal axis will give curves characteristic of right-sided preponderance. The reverse conditions will give curves characteristic of left-sided preponderance.

The importance of having the heart in the normal position for all electrocardiograms is emphasized. It seems clear that it is impossible to tell how much a change in position may affect the electrocardiogram or how much an abnormal electrocardiogram may be due to variations in position since the result is due to the summation of different rotations. Variations in position may accentuate, neutralize or reverse the effects of a slight degree of hypertrophy. It is for this reason that, as Herrmann and Wilson insist, the influence of the relative weight of the two ventricles predominates only when the heart is greatly hypertrophied.

DISCUSSION

These interesting studies of Mr. Wilson were discussed by Professor W. J. Meek who collaborated in the experimentation. Dr. Meek pointed out their importance in showing the limitations of the electrocardiographic method in diagnosing ventricular preponderance. March 23, 1926.

EFFECTS OF TENSION ON THE POLARITY OF FIBROBLASTS IN HEALING WOUNDS

BY C. E. EADES, M.D.

Incisions were made in the shaved skin of the backs of rabbits and tension was applied in various directions by means of sutures held in position for various lengths of time. The wound area was excised usually after six days' healing had been in progress, and sections were made across the wound. A study of the fibroblasts in the healing wound indicated that their polarity was greatly influenced by the direction of the tension placed upon them. In general, they tended to orient themselves in the direction of the tension.

If the tension were applied at right angles to the direction of the cut, the fibroblasts all appeared oriented at right angles to the cut. In pin point incisions with tension placed radially, as in spokes of a wheel, the fibroblasts were found to be growing along the direction of the lines of tension. Changes in the direction of the growth of the fibroblasts could be induced by changing the direction of the tension. Thus, when the original tension had been applied at right angles to the direction of the cut, the tension was changed to parallel the direction of the cut after two days' healing had been in progress. Examination at the end of two more days showed the fibroblasts curved with the original growth at right angles to the cut and the later growth parallel to it. If, however, the secondary growth were permitted to go on for four or more days, the fibroblasts were found to be aligned in the direction of the new tension.

The significance of these studies in scar tissue formation, especially in plastic surgery, remains to be established.

DISCUSSION

In discussing this work, Dr. C. H. Bunting indicated its significance in diagnosing sections of scar tissue. At times, if this were taken from the chest where the tension of the cardiac action is a considerable factor, the facts brought about by this interesting study may be of considerable importance. March 23, 1926.

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

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FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

WE ARE PROUD

MEMBERS of the State Medical Society of Wisconsin will be proud to learn that the American Medical Association has selected, by unanimous choice, Dr. Rock Sleyster to be one of the nine trustees of the great national association whose membership now includes upwards of 93,000 physicians. No one could be better fitted for the position of responsibility of trustee.

Dr. Sleyster has a record of service unexcelled in Wisconsin; rarely equalled in any state. He has served successively as Assistant Secretary of his State Society, for many years its Secretary, subsequently its President and is now Treasurer. At the same time he is one of the few members of the House of Delegates of the American Medical Association whose service has been long and continuous. While in that House he has several times been member and chairman of its reference committees and for the past five years Dr. Sleyster has been the unanimous choice for the Vice-Speakership of that House.

A great honor has come to one near and dear to us. To Dr. Sleyster we extend the hearty congratulations of his friends—the members of the State Medical Society of Wisconsin.

THE PERSONAL EQUATION

ONE of the forefathers of medicine sought to put it on an enduring social basis by instituting a strict code of ethics to guide practitioners through possible difficulties.

The times are somewhat different. modern thought has changed considerably, but the human element in medicine still remains human. We still have the doctor and the patient. Hippocrates would have to brush up in a scientific way were he to start in practice today, but he probably would give a very good account of himself in the human relationships of medicine.

Which brings us to a consideration of some of our dealings with the present day patient. Are we not in some danger of forgetting the personal equation in our eagerness to work out the clinical problem? Some patients are a bit bewildered at the numerous procedures and laboratory tests, at times somewhat disappointed at the rather cut and dried way in which the professional verdict and advice are finally rendered and almost always impressed with the statement for services. As one patient put it, "it was as itemized as a plumber's bill—I got so much of this and so much of that—all that was lacking was so many hours work at so much per hour, but I am sure I was not there on bargain day."

The cultist is short on laboratory technique, but he is apt to be long on human psychology. He makes his patient's difficulty a human interest matter and holds it as such and in so doing creates a most favorable therapeutic atmosphere.

We must not feel that we have done all there is to do for our diabetic when we have gotten him through acidosis and out on the straight and narrow path of diet. And the old "rheumatic" (with apologies) needs more than talk of chronic foci of infection and disturbed metabolism and the like. The mother of the bed wetter is not interested so much in scientific discussion as in something that will stop the nocturnal deluge, ease her fight for clean surroundings and end the weary work of many wash days.

A chair in our medical schools devoted to human relations, to the social and economic aspects of medicine, to the practical as well as to the strictly professional ethics of medicine, would help to supply an actual need in our present day scheme of work. After all is said, it is not so important who the doer is as what he does and how he does it.—R. E. M.

ANNUAL REGISTRATION OF PHYSICIANS

DURING the past year there has been an increased advocacy of annual registration of physicians as being the panacea by which the evils of quackery may be cured. The states of Iowa and Pennsylvania have adopted the measure. It is incorporated in the new medical practice act of New York now before the Governor for his consideration. It has been suggested that it is needed in Wisconsin.

Those advocating the measure make two claims for its efficacy. It is said that by this means the Board of Medical Examiners will know who are licensed to practice and thus will be able to discover more readily those practicing without authority, and second, that the funds derived from

the annual fee for re-registration will enable the Board better to enforce the laws.

As to the first claim we wonder if annual registration will provide any more accurate lists than that of original licensure now maintained by the Board or available to it. On the question of funds we are inclined to agree with the Boston Medical and Surgical Journal which stated editorially,[1] "If it is taxation for revenue the profession, in the course of years, will be obliged to contribute vastly more than any other professional body, and in a broad way be subjected to class legislation. It may be legal, and probably is, but it is not comforting."

If the question of enforcement of Wisconsin's splendid practice laws were a question of protecting those who are properly licensed from those who who are not, then it would be altogether proper and fitting that the cost of protection be taxed to the one class who would benefit by such protection.

It is obvious, however, that practice acts are fundamental and basic health laws of the state. What epidemic could be controlled if those holding themselves out as capable of treating disease could not recognize a case of contagious or communicable disease when they saw it?

Obviously the statutes governing who may treat the sick are enacted but for one purpose—and enforced but to one end—to protect the public generally from those who would prey upon the sick by fraud, through deceit and in ignorance.

We can well understand that the problem of how best to enforce the existing laws mentioned is not altogether an easy one. But we feel that it is a problem primarily to be solved by those charged with the duty of such enforcement, and if funds available are not adequate that such a situation should be first presented to our state legislature with a request for whatever appropriation is necessary to be made from the general funds of the state. No such request, to the best of our information, has ever been made. A free balance of at least $5,000 is now available according to the records of the Secretary of State. Certainly this is sufficient to make the start and the conditions uncovered by such work might well be the basis for the request for additional funds when the legislature meets in January next—provided that additional funds are needed.

We maintain that the traditional generosity of physicians should not be made the cause for class taxation in the first instance. If additional funds are necessary for the adequate enforcement of a public health law for the public good and if a proper request be presented to the legislature and by them denied—then will it be time to present the question to the medical profession of the state concerned, and we venture to state our belief that the medical profession, under those conditions, will do whatever may be necessary.

[1]Boston Medical and Surgical Journal, April 15, 1926.

BONE AND JOINT TUBERCULOSIS

IN an address on bone tuberculosis at a meeting of physicians at the Veterans' Hospital, Milwaukee, Dr. F. J. Gaenslen made the significant remark that in only a few of the cases of bone and joint tuberculosis seen by him in private or hospital and dispensary practice had the correct diagnosis of tuberculosis been made by the first physician consulted.

It would seem from this that in bone tuberculosis, as has been true to a lesser extent in pulmonary tuberculosis, the mildness of the symptoms of this treacherous and insidious disease is apt to mislead physicians whose suspicions are not keyed up by specialized interest and responsibility. Every expert in tuberculosis emphasizes the fact, over and over again, that *successful diagnosis of early tuberculous disease is far more a matter of early suspicion of early disease than it is of any extraordinary ability or occult powers of divination.* And this suspicion should persist as long as the symptoms persist or until a positive diagnosis of some nature is made. "Growing pains," night cries, "rheumatism," persistent limping with or without mentionable pain, are more likely than not to be tuberculous.—H. E. D.

RADIOLOGICAL MEETING

There will be a joint meeting of the Central Illinois Radiological Society and the Chicago Roentgen Society at Champaign, Illinois, on Tuesday, May 18th, during the annual convention of the Illinois State Medical Society. A splendid program has been arranged and every ethical physician is cordially invited to attend. Program of the meeting can be obtained from Harold Swanberg, M.D., President, Central Illinois Radiological Society, 731 Hampshire St., Quincy, Ill.

THE PRESIDENT'S PAGE

Joseph F. Saint

THE COUNTY MEDICAL SOCIETY

The plan of organization of the medical profession provides for the formation of county, state and national bodies. This plan very wisely makes the county society the unit in the organization scheme. Through membership in his local or county society, the doctor becomes a member of his state society and of the great national body, The American Medical Association.

The wisdom of this arrangement has been demonstrated in many ways. The physician in his own locality should be better able to pass upon a doctor's qualifications, moral and professional, than anyone else. If he is deemed worthy of such membership in his own locality, no other organization undertakes to dispute his right to membership in the state and national bodies. For this reason, it is desirable that care and discretion should be exercised by county societies in electing members. Quality as well as quantity should be considered. It sometimes happens that undesirable and unqualified persons seek membership in medical organizations in order to give an appearance of respectability to their community standing, when in fact they are totally unfit morally and professionally for membership in any of the organized medical bodies. Men whose practices are known to be immoral or men who are known to be ignorant and wholly unqualified to practice medicine can only bring reproach upon any organization to which they belong and county societies would be wholly justified in refusing to accept such persons as members.

The board of censors provided in the constitution of county medical societies is in reality a standing credentials committee. It is entirely proper that they should inquire into the moral and professional qualifications of applicants for membership before recommending their acceptance as members by the local society. In case the applicant is known beyond any reasonable doubt to lack the moral and professional qualifications for membership in organized medicine, his application should be rejected.

Our medical organizations have a far greater responsibility than that of securing a large membership roll, namely that of securing in these organizations the highest possible standard of moral and professional attainment. The public looks quite properly, but too often in vain, to organized medicine for a criterion or standard by which to evaluate the medical man's personality and services. It is only by looking carefully to the personnel of our local societies that we can avoid misleading the public whose confidence we should seek to hold.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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Barron-Polk-Washburn-Sawyer-Burnett	C. C. Post, Barron	D. L. Dawson, Rice Lake.
Brown-Kewaunee	F. J. Gosin, Green Bay	F. M. Harris, Green Bay.
Calumet	J. A. Schmidt, Brillion	H. C. Krohn, New Holstein.
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Clark	H. H. Christofferson, Colby	F. P. Foley, Dorchester.
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Door	John Hirschboeck, Forestville	T. C. Proctor, Sturgeon Bay.
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Green	J. L. Fleek, Brodhead	J. F. Mauermann, Monroe.
Green Lake-Waushara-Adams	B. E. Scott, Berlin	A. J. Wiesender, Berlin.
Iowa	D. B. Hamilton, Ridgeway	M. W. Trentzsch, Highland.
Jefferson	W. C. Becker, Watertown	A. C. Nickels, Watertown.
Juneau	C. A. Vogel, Elroy	A. T. Gregory, Mauston.
Kenosha	W. C. Stewart, Kenosha	H. A. Binnie, Kenosha.
La Crosse	Sigurd Gunderson, La Crosse	N. P. Anderson, La Crosse.
La Fayette	H. B. Moe, Blanchardville	W. W. Peck, Darlington.
Langlade	E. G. Bloor, Antigo	J. C. Wright, Antigo.
Lincoln	E. K. Morris, Merrill	W. H. Bayer, Merrill.
Manitowoc	C. L. R. MacCollum, Manitowoc	L. J. Moriarty, Two Rivers.
Marathon	E. M. Macauly, Wausau	J. M. Freeman, Wausau.
Marinette-Florence	T. J. Redelings, Marinette	M. D. Bird, Marinette.
Milwaukee	S. J. Seeger, Milwaukee	E. L. Tharinger, Milwaukee.
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Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis	Milwaukee, May 28-29
Medical Examiners	R. E. Flynn, La Crosse	Madison, June 29
Milwaukee County Medical Society	E. L. Tharinger	Pfister Hotel, 8:15, May 14
Milwaukee Academy of Medicine	D. E. W. Wenstrand	153 Oneida St., 8:15, May 11, 25
Milwaukee Neuro-Psychiatric Society	W. T. Kradwell	153 Oneida St., 8:15, May 27
Milwaukee Oto-Ophthalmic Society	Edward Ryan	Univ. Club, 6:30, May 18

COUNCILOR DISTRICT MEETINGS

First (Dodge, Jefferson, Waukesha)	Oconomowoc, June
Second (Kenosha, Racine, Walworth)	Racine
Third (Dane, Columbia, Green, Rock, Sauk)	Madison, June
Fourth (Crawford, Grant, Iowa, LaFayette, Richland)	
Fifth (Calumet, Manitowoc, Sheboygan, Washington-Ozaukee)	Elkhart Lake, July 1-2
Sixth (Brown-Kewaunee, Door, Outagamie, Fond du Lac, Winnebago)	
Seventh (Juneau, LaCrosse, Monroe, Vernon, Trempealeau-Jackson-Buffalo)	Sparta, May 20.
Eighth (Marinette-Florence, Oconto, Shawano)	
Ninth (Clark, Green Lake-Waushara-Adams, Lincoln, Marathon, Portage, Waupaca, Wood)	Stevens Point, May 13
Tenth (Eau Claire and Associated, Chippewa, Pierce, Rusk, St. Croix, Barron-Polk-Washburn-Sawyer-Burnett)	Eau Claire
Eleventh (Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas, Price-Taylor)	
Twelfth (Milwaukee)	

RADIOLOGICAL SECTION

At the April 6th meeting of the Radiological Section of the State Medical Society and the monthly meeting of the Outagamie County Medical Society, the following resolution was adopted as a memorial to the late Dr. Manly Jay Sandborn:

"Whereas, Almighty God in His infinite wisdom has called from our midst all that is mortal of Manly Jay Sandborn, and

"Whereas, Manly Jay Sandborn, who, by his untiring service to the civic, church, and fraternal affairs of his home town, by his participation in the activities of the Outagamie County and State Medical Societies, by his successful efforts in the development of Radiology as an integral part of Medicine, and especially through his rare gift of organization and leadership, which has placed our local and national Radiological Societies on a high plane of scientific usefulness, has won great honor for himself, his town, his state, his profession, and his specialty, and who, in his passing, has left to us the inspiration and the sincerity of his interest, be it therefore

"Resolved, That the Radiological Section of the State Medical Society of Wisconsin, in regular meeting assembled, extend to the bereaved family of our departed co-worker our deepest sympathy and condolence in their great loss, and be it further

"Resolved, That a page of our minutes be dedicated to his memory, a copy of these resolutions be sent to his family, a copy to the Wisconsin Medical Journal, a copy to the Appleton papers, and a copy spread upon the minutes of our record."

MEMORIAL COMMITTEE,
Frank W. Mackoy.
Howard Curl.
Charles R. Bardeen.

DANE

The Dane County Medical Society and the Dane County Dental Society held a joint meeting at the Monona Hotel, Madison, on April 15th. Dr. J. J. Meisser, Professor of Pathology, Western Reserve University, Cleveland, spoke on "The Relations of Dental Infections to Systemic Disease."—R. B. M.

FOND DU LAC

The members of the Fond du Lac County Medical Society met on April 21st at Hotel Retlaw. A six-thirty dinner preceded the business session.—D. N. W.

KENOSHA

Dr. L. D. Snorf of the Washington Boulevard Hospital of Chicago gave a very instructive talk on "Gastric Ulcers" to the members of the Kenosha County Medical Society at their March meeting. Dr. J. C. Krafft, President of the Illinois State Medical Society, spoke on "The Backward Subnormal and Criminal Child" at the April meeting of the society.

The February meeting was devoted to a discussion on the advisability of establishing a Credit and Service Bureau. We are indebted to Mr. Crownhart for an excellent investigation he made on this subject for the Kenosha County Medical Society.—H. A. B.

MANITOWOC

At a joint meeting of the Manitowoc County Medical and Dental Societies at the Elk's Club, Manitowoc, Drs. T. L. Squier and Harold Cramer gave interesting lectures on focal infection. Dr. Squier, who is head of the A. O. Smith Corporation Department of Preventive Medicine, Milwaukee, emphasized the importance of the removal of focal infections in the body in early and middle life to avoid the degenerative diseases which they cause in later life. He also explained the necessity for frequent physical examination in order to detect degenerative diseases before they progress to a dangerous stage.

Dr. Cramer, who is the head of the Dental Department, gave an interesting illustrated lecture on "X-Ray Evidence of Dental Foci." He showed conclusively that it is not always the amount of destruction of tissue caused at the original focus of infection that determines the degree to which the general system may suffer.—L. J. M.

MARATHON

The April meeting of the Marathon County Medical Society was held on Monday, April 12th at St. Mary's Hospital, Wausau. Dr. Joseph S. Evans, Madison, conducted a clinic during the afternoon and delivered an address on "Nephritis" in the evening.—J. M. F.

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society met Tuesday evening, April 20th. Dr. A. T. Nadeau, Marinette, read a paper on fractures and showed x-ray plates of most of the bones of the body. Dr. H. A. Vennema, Menominee, Michigan, presented an article on "Medical Economics." Mr. M. P. Sawyer, Menominee attorney, gave an outline of a collecting service, that has been endorsed by legal advisors and advocated a plan that would apply to the physicians of our society.—M. D. B.

MILWAUKEE

The April meeting of the Milwaukee County Medical Society was held at the new quarters of the Milwaukee Academy of Medicine. Dr. H. Gideon Wells, Department of Pathology, University of Chicago, addressed the society. His subject was "The Influence of Heredity on the Occurrence of Cancer in Man," with lantern slide illustrations.

Dr. C. M. Echols, Chairman of the Committee of Municipal and County Affairs, reported on an investigation of the possibility of obtaining parking privileges for physicians. Dr. J. J. McGovern, Chairman of the Committee on Public Policy and Legislation, reported on the licensing of foreign physicians.—E. L. T.

RACINE

The regular meeting of the Racine County Medical Society was held in the class room at St. Mary's Hospital, Thursday, April 15th. Dr. Harry O. Foerster of Milwaukee gave an address on the subject of "Recognition and Treatment of Common Skin Disorders." The lecture was illustrated with lantern slides and the attendance was good.—S. J.

ROCK

The necessity of a periodic health examination, especially for adults after forty years, was urged in a talk given recently at Beloit by Dr. Oscar Lotz, Milwaukee, before the members of the Rock County Medical Society. A dinner at Y. M. C. A. preceded the lecture. A large delegation of Janesville physicians was present.

Dr. Erwin R. Schmidt, Prof. of Surgery at the University of Wisconsin, spoke before the Society on Tuesday, April 27th. His subject was "The Surgical Treatment of Chronic Pericarditis."—G. K. W.

GREEN BAY ACADEMY OF MEDICINE

The April meeting of the Green Bay Academy of Medicine was held at St. Mary's Hospital on April 14th. Dr. W. A. Mueller read a paper on "Pernicious Anaemia." The paper was discussed by Drs. Charbonnean and Steinnon.—E. G. N.

MILWAUKEE ACADEMY OF MEDICINE

Dr. J. F. Montague, Belleview Hospital, New York City, presented a paper on "Popular Fallacies Concerning Hemorrhoids" at the April 13th meeting of the Milwaukee Academy of Medicine. Dr. J. F. Wilkinson, Oconomowoc, gave a case report.

On Tuesday, April 27th, Dr. C. W. Geyer and Dr. A. H. Gibson reported on cases and Dr. Wm. H. von Lackum of the Mayo Clinic spoke on "The Prostate as a Focus of Infection" which was illustrated by lantern slides.

The Academy has received a number of gifts with which to furnish its new rooms. The gifts include books, magazines, a ballot box, a pointer, several pairs of antlers, a bulletin board, and a flag and standard.—D. E. W. W.

MILWAUKEE NEURO-PSYCHIATRIC

The Milwaukee Neuro-Psychiatric Society will meet on Thursday, May 27, 1926, at 8:15 P. M., in the rooms of the Milwaukee Academy of Medicine. Papers will be read by Dr. Arthur W. Rogers and Dr. H. J. Forman.

MILWAUKEE OTO-OPHTHALMIC

The regular monthly meeting of the Milwaukee Oto-Ophthalmic Society was held on April 20th at the University Club. The following program was presented: Dr. Edwin C. Bach, "The Anatomy and Physiology of the Iris"; Drs. Nelson M. Black and F. H. Haessler, a case report of "A Mass on the Iris"; Dr. Edward R. Ryan, resume of the literature on "Dermoid Cysts of the Orbit."—E. R. R.

MILWAUKEE PEDIATRIC

The members of the Milwaukee Pediatric Society met at the Milwaukee Children's Hospital on April 14th at eight o'clock. Dr. Clifford Grulee read a paper on "Intraperitoneal Transfusion of Citrated Blood in Anemia Pseudolencemia, von Jaksch-Hayem Disease."—M. G. P.

NEWS ITEMS AND PERSONALS

Dr. L. E. Youmans of Mukwonago, has sold his home and practice to a Milwaukee physician who will take possession on June 1st. Dr. Youmans became successor in 1891 to his father, Dr. H. A. Youmans, who located in that community in 1838. His retirement terminates a continuous practice in Mukwonago and surrounding territory by that family for eighty-eight years.

Dr. G. F. Goggins, former city health commissioner of Green Bay, who has been looking after the practice of Dr. M. F. Dockery, Iron Mountain, Mich., has returned to the former city to resume his practice. Dr. Goggins has opened offices in the suite formerly occupied by Dr. J. A. Hernandez at 116 N. Washington Street. Dr. Hernandez has moved to the Hoffman Block, 225 E. Walnut Street, Green Bay.

Dr. and Mrs. George W. Fifield of Janesville have returned to their home from a trip around the world. Several weeks were spent in Vienna, Austria, where Dr. Fifield took up special work.

"Does Health Work Pay?" was the subject of an instructive lecture given by Dr. T. J. Redelings, Marinette, to the members of the Catholic Woman's Club at their regular March meeting. Dr. Redelings came to Marinette in 1887 and has long made a study of health conditions in that city.

The State Board of Control of Madison has accepted the resignation of Dr. John F. Brown as superintendent of the Central State Hospital for Insane, Waupun. His resignation was tendered because of continued ill health.

Dr. Brown has been superintendent of the Central Hospital since 1919 and has been associated with state institutional work for the past twenty-three years, serving at one time as superintendent of the School for the Blind at Janesville, superintendent and physician at the School for Dependent Children at Sparta, and physician at the state prison for seven years prior to accepting the position at Waupun.

Dr. I. A. Myers, formerly of Cottage Grove, has opened offices in the First Central Building, Madison, where he will specialize in diseases of the eye, ear, nose and throat. Since the first of the year he has been doing post-graduate work in Chicago at the Presbyterian Hospital, the Chicago Eye, Ear, Nose and Throat College, and at the North Chicago Hospital.

Declaring that the periodic health examination is absolutely essential and no more than a common-sense method of keeping well, Dr. W. A. Fulton gave members of the Burlington Club an idea of the thoroughness of such an examination when he spoke before them recently.

Tests conducted the past four months by the State Laboratory of Hygiene have established a simple method of maintaining the purity of water in swimming pools. A residuum of chlorine equal to two parts of chlorine to one million parts of water is sufficient to maintain continuously, a pool of water which meets Treasury Department standards for pure drinking water.

Dr. H. O. Shockley of Darlington was re-elected mayor of that city at a recent election.

The Henke Clinic of La Crosse has moved to its new quarters at Grand View Hospital. This includes the offices of the following physicians: Drs. W. A. Henke, B. W. Mast, R. D. Jamieson, R. L. Eagan, N. P. Anderson and C. A. Gehring. The office hours are from eleven to twelve and from one to five.

A very interesting address was presented by Dr. F. C. Christensen of Racine at a luncheon of the West Side Business Men's Association recently. Dr. Christensen spent three months in Vienna, Austria, and in his talk touched upon the hospitals, theaters, politics, and customs of the citizens.

Establishment of small community hospitals is regarded by Prof. John H. Kolb, rural sociologist of the University of Wisconsin, as the best method to meet the growing tendency of physicians to yield to the allurement of the larger cities. The hospital service institutions not only will shorten the distance between the farm home and the hospital but under proper organization will be able to meet the needs of the community both economically and well, Prof. Kolb believes.

Records show that at least twenty Wisconsin counties have no general hospitals, while several counties have several small hospitals in the community. Nine counties in Wisconsin have one bed for every 250 persons, 21 have one for every 499 persons, 12 have one for every 500 to 999 persons, and 9 counties have one bed for every 1,000 persons. The remainder have no hospital facilities whatever but are forced to rely upon those of nearby towns.

Dr. D. N. Walters and Dr. L. J. Simon, who were formerly associated with the Fond du Lac Clinic, have opened new offices in the Commercial National Bank Building of that city.

Dr. I. E. Ozanne was elected president of the physicians' staff of the Theda Clark Memorial Hospital, Neenah, at the annual meeting held at the hospital recently. Dr. T. D. Smith was elected secretary-treasurer. Following the election of officers, Dr. Ozanne read an instructive paper on "Empyema."

The Husher Community of Racine County has been successful in securing a physician to establish a practice there. Since Dr. C. A. Scholtes moved to Chicago last October, Husher has been without a physician for the first time in fifty years. It was reported that a Dr. Ruppenthal of Milwaukee will open a practice in that community in the near future.

Dr. Clarence J. Kenney, assistant chief of the Tuberculosis Hospital at the Soldiers' Home, has been promoted to the position of chief of the Tuberculosis Hospital at the Soldiers' Home of Sawtell, California. Dr. Kenney resigned the position of epidemiologist of the Milwaukee Health Department, which he had held three years, to assume a position on the medical staff at the General Hospital at the Soldiers' Home four years ago. He was later transferred to the Tuberculosis Hospital when it was opened about three years ago.

Great changes have been made in the field of medicine within the past hundred years, declared Dr. W. E. Fairfield, Green Bay, in speaking before the members of the Gyro Club on the subject of "Romance in Medicine." Dr. Fairfield concluded that great things were in store for the future and the time will come when we will no longer fear any kind of disease, as the door to research has only just been opened.

Dr. Philip R. Fox, Sr., eminent medical man of Madison, celebrated his 86th birthday with a quiet birthday dinner at his home on March 29th. A larger celebration of the event was anticipated but the plans were given up and only the immediate family were present.

Dr. Arthur W. Rogers of the Oconomowoc Health Resort wishes to announce that he has now associated with him Dr. James C. Hossall. Dr. Hossall was with Dr. White at the Government Hospital for the Insane for seven years and part of the time served as first assistant physician. For the past six years he has been the medical head of the seventy-five bed Sanitarium for Mental Diseases in Ohio.

The staff of the Ashland General Hospital held its annual election recently at a luncheon at the hospital. Dr. C. J. Smiles was elected president and A. Kamm, who has been acting president in the absence of Dr. A. O. Shaw, was re-elected vice-president. Dr. R. L. Gilman was re-elected secretary of the staff.

Dr. William F. Lorenz, Professor of Nervous and Mental Diseases in the Medical School at the University of Wisconsin, gave an illustrated lecture on his recent trip to Mexico at a meeting of the William B. Cairns Post 57 of the American Legion, Madison, on April 23rd.

"The time to begin to preserve the eyesight is when the baby is born," said Dr. G. I. Hogue, Milwaukee, in his talk before the final meeting of the Mothercraft School at the Maternity Center recently. Dr. Hogue expressed his regret that not every state had passed a law similar to Wisconsin making it compulsory for the attendant at birth to drop silver nitrate into the eyes of the infant.

Dr. C. H. Beadles, Beloit, has been appointed county physician for the southern district of Rock County to fill the vacancy caused by the death of Dr. W. G. Melaas.

Six members of the newly organized Rock County Medical Milk Commission toured the plants of the Janesville Pure Milk Company and the Shurtleff Ice Cream Company Sunday morning, April 18th. In the afternoon they visited the James Dairy Farm at Ft. Atkinson. Those making the tour were: Drs. W. A. Munn, F. B. Welch, L. J. Woodworth, A. J. Knilans, all of Janesville; G. W. Belting, Orfordville; and G. E. Crosley, Milton.

"Infection in surgical cases is now practically unknown because of the scientific methods employed by surgeons, hospital authorities, nurses and those associated with the management of these institutions," Dr. R. W. Jones, Wausau, told the members of the Kiwanis Club at a recent noonday luncheon. Dr. Jones' address was based on the application of scientific developments in modern surgery and was very interesting to the laymen not intimately acquainted with the technicalities of the operating room and the application of modern methods in surgical and hospital cases.

Dr. Erwin C. Cary of Reedsville was elected health officer of that city at the April election. His term is for two years.

That he will not enter the gubernatorial race was the statement issued by Dr. W. E. Fairfield, Green Bay, according to the Green Bay Press Gazette of April 2nd. The Press Gazette reported that Dr. Fairfield had been urged to enter the contest on a ticket with Mr. F. J. Kelly of Hales Corners who is a candidate for the United States senatorship. It is reported that Dr. Fairfield stated that he had no desire to enter the political field and that he is not a candidate for any office.

Dr Frederic L. Grover has opened offices in the new Tower Theatre Building on 27th and Wells Streets, Milwaukee. He was formerly with the Milwaukee County Hospital for Insane at Wauwatosa but has decided to establish private practice.

MARRIAGES

Dr. J. B. Thompson, Wittenberg, and Mrs. Florence Foley were united in marriage on March 22nd.

DEATHS

Dr. A. T. King, Milwaukee, died on March 30th of bronchial pneumonia. He was born in 1851, and was

graduated from Northwestern University Medical School in 1881. Dr. King retired from active practice several years ago. He is survived by his wife, a son and three daughters.

Dr. John A. Wilkinson, died at his home in Hales Corners on Saturday, April 10th, following an extended illness. He was born July 17, 1860, at West Lubec, Maine, and was graduated from the Milwaukee Medical College in 1901. The doctor has practiced continuously in Hales Corners and the surrounding country since his graduation. He is survived by his wife, one daughter and three sons.

Dr. Wilkinson was a member of the Milwaukee County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. Wilbur G. Melaas, Beloit, died at the Emergency Hospital of that city on April 17th following a gall bladder operation. He was born at Stoughton on June 3, 1883, and was graduated from Rush Medical College in 1905. Following his internship at the Milwaukee County Hospital he went to North Freedom, Wis., where he practiced until he moved to Beloit fourteen years ago. Dr. Melaas is survived by his wife and three children.

He was a member of the Rock County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. W. H. Hufnail, Grandview, Wash., passed away at his home in that city on March 20th. He was born in 1871 and was graduated from Bennett Medical College in 1897. Dr. Hufnail was well known in Barron County where he had practiced for about thirty years before leaving for Washington.

Dr. E. J. Ziegler, Oxford, passed away at his home on Saturday, April 24th. He was born April 13, 1884, at Frazee, Minn., and was a graduate of the Milwaukee Medical College in 1911. Dr. Ziegler was a member of the Columbia County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife and two daughters.

Dr. John Van Reed Lyman, Eau Claire, died at Milwaukee on Wednesday, March 31st, succumbing to an attack of bronchial pneumonia. He had been at a sanitarium for several months, having been under treatment there for a serious stomach disorder. The doctor had not actively practiced his profession since he broke his hip about a year ago.

Dr. Lyman was born in North Pepin, Wis., on January 13, 1857, attending St. Louis Medical College in 1877, and the following two years were spent at Rush Medical College, Chicago, where he was graduated in 1880. He located in Eau Claire the same year, and since then had been engaged in active and successful practice of his profession, interrupted only by trips to Europe in the pursuit of knowledge in his specialty of surgery and gynecology.

Dr. Lyman was a member of the Eau Claire County Medical Society, the State Medical Society of Wisconsin, the American Medical Association, and President of the Inter-State Post-Graduate Assembly of North America. The honorary pall-bearers, all members of the Eau Claire County Medical Society, were: Drs. E. S. Hayes, C. Midelfart, F. S. Cook, E. L. Mason, H. F. Derge, E. E. Curtis, J. F. Farr, J. B. Ziegler, F. C. Kinsman and A. L. Payne. Surviving the doctor are his wife, two sons and a daughter.

Memorial Resolution

On April 8th the Eau Claire Kiwanis Club held a special memorial meeting at which a committee presented a memorial resolution.

The resolution presented, by the committee consisting of Dr. R. E. Mitchell, Dr. E. E. Tupper and Dr. George W. Beebe, and which was adopted by a rising vote and "a moment of silence," was as follows:

"Dr. John Van Reed Lyman is dead. Another Kiwanian has gone to his well deserved rest. He was a builder in the best sense of the word. He was a pioneer surgeon. His whole active life was one of community service. We can ill afford to lose such a man.

"After graduating from Rush Medical College in 1880 he came to Eau Claire and has continuously practiced his profession here. Forty-five years of such service in a community is not common. It is almost impossible to measure its real value. He has seen our city come up from a straggling shabby town in a sparsely settled country, pass through the vicissitudes of a lumber town and gradually become transformed into a nice community of comfortable homes and stabilized industries centrally located in an especially favored section of our state. And he has done his share to help bring about this splendid work.

"In his lifetime modern surgery was established, modern laboratory methods were developed, hygiene and sanitation became community necessities. The hospital, now looked upon as an essential, went through a strenuous birth and stormy early career. Medicine has come to be an exact science, the x-ray, radium, insulin and numerous other aids to medicine and surgery have come into common use. All these things he has seen come into our scheme of living and he was always one of the first to take up those of proven worth and give his community the benefit.

"He was strong in body and will power and in resolution to make the best of his opportunities. The life of a physician demands the exercise of the highest qualities of mind and heart and these Dr. Lyman had in full measure. He was not given to worldly pleasures, he never spoke ill of a fellow physician, he was kind hearted and generous to a fault. It was a singular power he wielded in his professional relations to his patients and to the public through the simple force and charm of his persouality.

"He was a keen and comprehensive observer. He had unbounded faith in the possibilities of the science of healing and an enthusiasm that disappointment never abated and failure did not quench. He never wearied in his efforts to increase the usefulness of his profession, to maintain its honor and exalt its claims to public confidence.

"No one who has seen him enter the sick room can forget the magical influence of his alert and cheerful presence. It banished fear and inspired hope. Not in our generation will we be able to forget his unique and familiar figure. We shall miss him from our streets and gatherings. We shall miss him in our hospitals and most of all we shall miss him from the bedside of our sick oues.

"It was only natural that such a man should be recognized by his fellow workers, that from time to time he received such honors as his professional brothers could give him, that at the time of his death he was the president of one of the most important medical societies in this country. With such a man in our midst our city was bound to become a medical center. The location of two first class hospitals in our community is bona fide evidence of the work of this leaveu.

"Dr. John," as he was affectionately and familiarly called, had in a rare degree the requisites of the real physician. To begin with, he was a very human and understanding and sympathetic type of man. Then from the professional point of view he was a fully equipped physician. And last and best he knew his patients and he was able to supply the needed skill at the right time (all of which is so vastly important to the sick one). He always gave of himself without stint, of late years often going beyond the reasonable demands of increasing years. The poor had just as much a place in his day as the well to do. The sufferer at night was not put off until a convenient time next morning.

"The exacting demands of the late war work together with the havoc of the great influenza epidemic wore him down and brought on a severe attack of his old trouble. For a time he was in precarious health but gradually he came back to us with much of his old time vigor.

"A number of serious accidents and several critical illnesses have interrupted his work for relatively long periods but he always met these 'outrageous flings' with invariable optimism and determination, he practiced what most physicians preach, and won out.

"Nearly a year ago a series of well nigh overwhelming calamities followed close upon each other and for the first time the good fighter was not able to meet the odds. Yet as the year wore on and the days grew more difficult there was no complaint. There was still a hope that the old full days of service would come back until the clouds of critical illness settled down about him.

"Any words of comfort and sympathy that we extend to the bereaved family are altogether too weak to alleviate the heart aches of those who bear such a loss. We wish this family to know that we do sympathize with them and we do grieve in their loss.

"And finally, brother Kiwanians, let us believe that the Great Builder will find a special sphere of usefulness for this Kiwanian Brother who has gone on before us."

SOCIETY RECORDS

NEW MEMBERS

Clark, Burton, Jr., 19 Jefferson Ave., Oshkosh.
Carpenter, E. E., Superior.
Looze, A. J., Superior.
Lane, J. W., Schwartz Bldg., Kenosha.
Seiler, Elizabeth, Kenosha.
Colignon, James G., Bellin Bldg., Green Bay.
Schmidt, Erwin, Wisconsin General Hospital, Madison.
Wolfgram, O. J., Lyons.
Landis, Ralph V., 120 So. Oneida St., Appleton.
Cutting, Lloyd D., 604 Park St., Stevens Point.
Prees, R. L., North Fond du Lac.
Harkins, J. P., Beaver Dam.
McBeath, N. E., 141 Wisconsin St., Milwaukee.
McGrath, J. W., 1724 Kinnickinnic Ave., Milwaukee.
Van Ells, L. A., 5314 National Ave., West Allis.
Bernhard, L. A., 510 Mitchell St., Milwaukee.
Waldeck, E. A., 204 Grand Ave., Milwaukee.
Kelly, G. F. 972 26th Ave., Milwaukee.
Aylward, T. J., 3503 Center St., Milwaukee.
Gibson, A. H., 167 17th St., Milwaukee.
Craite, E. J. 85 29th St., Milwaukee.
Brunkhorst, R. O., 416 East North Ave., Milwaukee.
Becker, C. J., 803 8th St., Milwaukee.
Mulsow, J. E. 230 Grand Ave., Milwaukee.
Johnson, H. W., 105 Wells St., Milwaukee.
Heidner, F. C., 502 Wells Bldg., Milwaukee.
Pendergast, T. J., 908 National Ave., Milwaukee.
Shimpa, J. F., 805 36th St., Milwaukee.
Smuckler, R. H., 1807 Vliet St., Milwaukee.
Hanley, W. J., Public Service Bldg., Kenosha.

CHANGES IN ADDRESS

Dill, George M., Long Beach, Calif., to Prescott.

Havens, Fred Z., Waupun, to Mayo Clinic, Rochester, Minn.

Coumbe, W. R., Clearwater, Fla., to Richland Center.

Myers, I. A., Cottage Grove, to First Central Bldg., Madison.

Grover, F. L., Milwaukee County Hospital, Wauwatosa, to 187 27th St., Milwaukee.

CORRESPONDENCE

A COMPLIMENT

1617 Oakland Avenue,
Des Moines, Iowa,
March 25, 1926.

Dr. E. L. Tharinger,
Secretary, Milwaukee County Medical Society,
Milwaukee, Wisconsin.

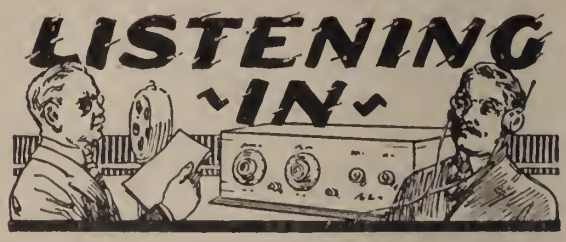
My dear Dr. Tharinger:

Will you have a transfer card made out for me, to the Iowa State Medical Society? Much as I regret to sever the old connections, this seems to be the right move at this time—it is about ten years since my last medical society meeting in Milwaukee.

Post-graduate work at Harvard, then the military service, and since 1921, the Veterans' Bureau, with some six or seven changes of location in that time, have made me feel very much of a transient, but for my membership in the Milwaukee County Medical Society.

I do not want to give up the WISCONSIN MEDICAL JOURNAL—if this change in my state membership means no more JOURNAL, then send me a subscription blank promptly.

Very truly yours,
ARTHUR W. K. AKERLEY, M. D.



WHEN AWAY IS NOT AWAY

In the administration of federal income tax laws the Treasury Department held (1922) that a physician might not deduct expenses in attending either scientific meetings or post-graduate courses on the ground that such expenses were neither "ordinary" or "necessary" to the carrying on of the profession.

In support of that ruling the statements have been made that:

1. "Such expenses are but remotely connected with the carrying on of a profession."

2. Attendance at meeting or post-graduate schools "is wholly optional with the taxpayer."

This month the Treasury Department thought up a new one. Commissioner Blair wrote Senator I. L. Lenroot (Superior): "The taxpayer must be 'away from home in the pursuit of a trade or business' in order to be entitled to the deduction. A physician, while attending medical conventions or while away from home taking post-graduate work, is not considered as being away from home * * *." That should be clear enough for anyone.

According to the erudite Treasury Department a physician is through study when he receives his degree. Of course if he wants to study and keep abreast with medical progress all well and good, but it is neither ordinary or necessary and that's that!

Senator Lenroot asked for the present interpretation at the request of your Secretary. The Senator had an amendment prepared to the recent tax bill to remedy this unusual ruling but was informed that the Treasury Department would allow the deductions to be made. The amendment was not offered only now to learn that the Department adheres to its former position.

Apparently it is going to take an act of Congress to inform the Treasury Department that the physician who fails to exercise usual and ordinary means of keeping abreast with medical progress may find himself facing a malpractice suit for negligence so to do.

In the meantime, so far as the income tax is concerned, the ruling rules.

The Letter

TREASURY DEPARTMENT
Washington

March 5, 1926.

Hon. Irvine L. Lenroot,
United States Senate.
My dear Senator:

Reference is made to your letter of February 26, 1926, transmitting letter dated February 19, 1926, from Mr. J. G. Crownhart, Executive Secretary of the State Medical Society of Wisconsin, Milwaukee, Wisconsin, requesting that the Bureau reconsider its ruling holding that expenses incurred by physicians in attending scientific meetings and in taking post-graduate work are not deductible in computing net income.

In reply I have to state that the Bureau has given careful consideration to the question as to whether the expenditures referred to are deductible in computing net income. In order to be deductible, the expenditures must constitute either an ordinary and necessary business expense or a traveling expense, within the meaning of Section 214(a)(1) of the Revenue Act of 1926.

Section 214 of the Revenue Act of 1926 provides in part as follows:

"(a) In computing net income there shall be allowed as deductions:

"(1) All the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, * * *; traveling expenses (including the entire amount expended for meals and lodging) while away from home in the pursuit of a trade or business * * *."

The Attorney General, in an opinion dated May 19, 1919, held that "the ordinary and necessary expenses" contemplated by Section 214(a)(1) of the Revenue Act of 1918 were those expenses incurred directly in the maintenance and operation of the business and not all those expenses which might be beneficial or even necessary in the broader sense. Since the provisions of the Revenue Act of 1926 relating to the deduction of the business expenses are substantially the same as those of the Revenue Act of 1918, the opinion of the Attorney General referred to is equally applicable to the Revenue Act of 1926. The expenses incurred by a physician in attending medical conventions or meetings, in the opinion of this office, do not constitute ordinary and necessary expenses paid or incurred in the practice of his profession, within the meaning of Section 214 (a) (1) of the Revenue Act of 1926. Such expenses are considered to be of the same nature as those incurred by a physician in taking post-graduate courses, which expenses have been held to be in the nature of personal expenses which are not deductible. Under the provisions of Section 214(a)(1) of the Revenue Act of 1926, "traveling expenses (including the entire amount expended for meals and lodging) while away from home in the pursuit of a trade or business" are deductible. The taxpayer must be "away from home in the pursuit of a trade or business" in order to be entitled to the deduction. A physician, while attending medical conventions or while away from home taking post-graduate work, is not considered as being away from home in the pursuit of his profession within the meaning of Section 214(a)(1) of the statute.

In compliance with your request Mr. Crownhart's letter is returned herewith.

If you desire to take this matter up with me further, consideration will be expedited by reference to IT:E:RR:ALH.

Sincerely yours,
(Signed) D. W. Blair,
Commissioner.

IN NINTH PLACE

Wisconsin is now in ninth place among all states in the Union for Hygeia circulation per 100,000 population, according to Mr. F. V. Cargill, circulation manager. In 1924 Wisconsin was in thirty-first place and in 1925 it was in twelfth place. The State Board of Health recently entered 32 subscriptions for its deputy officers and field workers.

UNFORTUNATE

The history of malpractice suits in Wisconsin shows that very few of those commenced have had what might be considered a reasonable basis. It would also seem to indicate that some suits are first suggested by physicians who make rather unfortunate remarks reflecting on the judgment or efficacy of treatment prescribed by some brother practitioner.

Sometime it would seem they forget the real basis for malpractice. If the physician gave the best treatment he was capable of giving and the treatment that was accorded by other physicians as usual and ordinary for a like case, at like time and under like conditions, malpractice does not exist even though the treatment was not that which might have been given by a specialist in a large city.

The medical profession should never do that which would hinder a patient from securing redress in just claims. But, on the other hand, in the interest of the patient they should be a bit hesitant to say that some other physician has been guilty of "criminal negligence" or "gross malpractice" until they learn all the conditions involved. Both the statements quoted were made by physicians within the last month. In neither instance do they appear to have been justified.

That which is said cannot be retracted and he who destroys the confidence of a patient in his family physician should be sure of his ground.

Dr. Rock Sleyster Elected Trustee of American Medical Association at Dallas Meeting; Dr. J. N. Jackson, Kansas City, President-Elect

Dr. Rock Sleyster, Wauwatosa, for five years Vice-Speaker of the House of Delegates of the A. M. A., was elected Trustee of the Association on Thursday, April 22nd, at the Dallas meeting. Dr. Sleyster's election is for one year to fill the unexpired term of Dr. Thomas McDavitt, St. Paul, deceased.

Not since the retirement of Dr. W. T. Sarles, Sparta, several years ago, has Wisconsin had a representative on the Board of Trustees. The total membership of the Board is nine.

Dr. Jabez N. Jackson, Kansas City, was elected President-Elect to assume the Presidency following the 1927 meeting which will be held at Washington, D. C. Other officers elected at Dallas are: Vice-President, John O. McReynolds, Dallas; Secretary and General Manager, Olin West (re-elected); Treasurer, A. A. Hayden, Chicago (re-elected); Speaker, House of Delegates, F. C. Warnshuis, Michigan (re-elected); Vice-Speaker, House of Delegates, A. H. Bunce, Georgia; and the following were re-elected to the Board of Trustees: C. W. Richardson, Washington, D. C.; Joseph A. Pettit, Portland, Ore., and J. H. J. Upham, Columbus, Ohio.

Dr. Sleyster's nomination by Dr. H. M. Brown, Milwaukee, was seconded by Michigan, Minnesota, Tennessee and Alabama. Upon motion nominations were closed and the election was declared unanimous.

Wisconsin was represented at Dallas by upwards of fifty members of the State Society. The three delegates, Drs. Sleyster, Brown and Joseph F. Smith, Wausau, were in attendance throughout each of the sessions of the House of Delegates.

Dr. H. M. Brown, Milwaukee, was selected Chairman of the Reference Committee on Legislation and Public Relations, the most important reference committee of the House. The Committee was in session almost continuously until Thursday evening.

SMITH OFFERS RESOLUTION

A resolution commending the Board of Trustees for its prompt action and thoughtful consideration in appointing the newly created Council on Physical Therapy was offered through Dr. Joseph F. Smith and adopted as part of a general report. This Council was created by the last House of Delegates upon resolution by Dr. Smith, now President of the State Society.

Wisconsin was well represented in the Scientific Sessions. The following presented papers during the five-day session: "Surgical Treatment of Cleft Palate," by G. V. I. Brown, Milwaukee; "Cautery Treatment of Chronic Gonorrhea of the Cervix," by H. W. Shutter, Milwaukee; "Observations on Thyroid Hypertrophy and Pregnancy," by Carl Henry Davis, Milwaukee, Secretary, Section on Obstetrics and Gynecology; "The Action and Clinical Use of Ephedrine," by K. K. Chen, Madison; "Sporotrichosis, and Occupational Dermatosis," by H. R. Foerster, Milwaukee, and "The Use of *o*-Iodoxybenzoic Acid in the Treatment of Chronic Arthritis," by J. B. Youmans, Mukwonago, now of the University of Michigan. Among those discussing papers were F. J. Gaenslen, Milwaukee, member of the executive committee of the Section on Orthopedic Surgery, and Roy A. Barlow, Madison. In the motion picture theater Carl Henry Davis, Milwaukee, presented motion pictures and lantern slides on "Normal Labor and Eclampsia."

HONOR STEENBOCK

Prof. H. Steenbock, University of Wisconsin, was elected Affiliate Fellow of the Association by

(Continued on page 272)

Medical Examiners Say Funds Insufficient for Field Investigator; Now Ask Financial Aid

Petitions by State Senator Oscar Morris, secretary of the Better Business Bureau of Milwaukee Association of Commerce, and by Dr. John P. Koehler, city health commissioner of Milwaukee, that the State Board of Medical Examiners employ a field investigator for the purpose of securing evidence necessary to convict quack practitioners in Wisconsin, were rejected by the board at its meeting in Milwaukee on Wednesday, April 14th. Dr. Koehler and Senator Morris presented to the board the results of Milwaukee's local campaign and pointed out that many convictions had been secured with an appropriation of but $200. Dr. Koehler declared that the principal difficulty encountered by health authorities was the fact that there was no one in the state whose duty it was, or whose services might be secured, for the purpose of obtaining evidence upon which warrants might be based.

The board spread upon its minutes a hearty endorsement of the good work accomplished by Dr. Koehler and the fact that it was favorably impressed by the program presented. The board maintained, however, that they had insufficient funds to adopt the program advocated.

Dr. Koehler and Senator Morris based their appearance before the board upon subsections 4 and 6 of Section 147.13 of the statutes which provide in part that the board shall employ necessary assistance and "shall investigate complaints of violation of this chapter, notify prosecuting officers, institute prosecutions, and if it so direct, and the court and district attorney consent, its counsel shall assist the district attorney."

In reporting the meeting Dr. Robert E. Flynn, La Crosse, Secretary, declared:

"Our board was very favorably impressed with the program Dr. Koehler and Senator Morris outlined and caused to be spread upon our minutes a very hearty endorsement of this good work.

"Considerable discussion took place among our members as to future enforcement of our Medical Practice Act, and it was the unanimous opinion that certain police powers should be exercised, provided we had the means to go ahead.

"At the present time we are seeking the aid of the district attorney of ..... County in an effort to prosecute Dr. ..... of ....., whom we know to be practicing without a license.

"At the present time we are operating at a yearly loss*, although we are exercising rigid economy. It was proposed that our board seek to obtain some additional funds for this work from the coming legislature or from any other organization which may see fit to assist us financially.

"I think that if sufficient money was available that we could all get together and do a very good job of 'house-cleaning.' But it would be utter folly to start something and then not be able to finish it because our treasury was depleted."

> "147.13(4). The board shall employ a licensed attorney as counsel and other necessary assistants, and fix their compensation. The counsel shall attend the meetings of the board, advise the members, and assist the board generally.
>
> "147.13(6). The board shall investigate complaints of violation of this chapter, notify prosecuting officers, institute prosecutions, and if it so direct, and the court and district attorney consent, its counsel shall assist the district attorney."
>
> "A public officer takes his office cum onere."
>
> —Wisconsin Supreme Court.

FIVE LICENSED

Five physicians from different states were licensed by reciprocity as result of the board meeting. Those who received their Wisconsin license are:

Name	Address	Reciprocating State
Truman Oliver Anderson	240 E. 109th St., Chicago, Ill.	Illinois
George Byron Brown	Clarion, Iowa	Iowa
Albert Marcellus Dawson	445 Milwaukee St. Milwaukee	Kansas
Frank Peyton Gaunt	218 8th Ave., S.E. Rochester, Minn.	Missouri
Lucian Ford McClenathan	Hotel LaSalle Chicago, Ill.	Illinois

* Balance March 31, 1924, $5,857.07; March 31, 1925, $8,383.22; March 31, 1926, $7,724.27.

THE JOURNAL BOOK SHELF

Feeding and the Nutritional Disorders in Infancy and Childhood. By Julius H. Hess, M.D., Prof. and head of the department of Pediatrics, Univ. of Illinois College of Medicine; chief of Pediatric Staff, Cook County Hospital. Illustrated with forty-two engravings in the text and one full-page colored plate. Fourth revised and enlarged edition. Price, $4.50, net. F. A. Davis Company, Philadelphia, 1925.

Ophthalmic Year Book, The. By Edward Jackson and William H. Crisp. Contains bibliographies, digests and indexes of the literature of ophthalmology for year 1923. Volume XX. Geo. Banta Publishing Company, 1924, Menasha, Wis.

Manual of Obstetrics. By John Cook Hirst, M.D., Associate in Gynecology and Obstetrics, Graduate School of Medicine, University of Pennsylvania; Associate in Obstetrics, School of Medicine, University of Pennsylvania. Second Edition, entirely reset. 12mo of 551 pages with 229 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, $4.50, net.

Manual for Diabetics. By Gladys L. Boyd, M.D., Director of Diabetic Clinic and Clinical Assistant, Hospital for Sick Children, Toronto; Research Fellow in Pediatrics, University of Toronto; Assistant Physician to Newborn Clinic, Toronto General Hospital; Pediatrist-in-Chief, Woman's College Hospital, Toronto; Fellow of Canadian Society for the Study of Diseases of Children. And Marion D. Stalsmith, Dietitian to the Diabetic Clinic, Hospital for Sick Children, Toronto. Funk & Wagnals Company, New York and London, 1925.

Medical Clinics of North America. Volume VIII, Number IV, (Mayo Clinic Number, January, 1925). Octavo of 374 pages with 66 illustrations. Paper, $12.00; cloth, $16.00. W. B. Saunders Company, Philadelphia and London.

Surgical Clinics of North America. Clinic of Frank H. Lahey, M.D., Boston. Volume IV, number VI, 166 pages with 43 illustrations, and complete index to volume IV. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

The Technic of Local Anesthesia. By Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., F.A.C.S., Prof. of Surgery in the University of Kansas. Third edition, with 140 illustrations. Price, $5.50. C. V. Mosby Company, St. Louis, 1925.

Medical and Surgical Report of the Roosevelt Hospital, New York. Second series, 1925, based on the work of the years 1915-1924 inclusive. Price, $5.00. Paul B. Hoeber, Inc., New York City.

The Medical Clinics of North America. Volume VIII, Number V, March, 1925 (Boston Number). Octavo of 247 pages and 21 illustrations. Per clinic year (July 1924, to May, 1925): Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia, and London.

The Normal Diet. By W. D. Sansum, M.S., M.D., Director of the Potter Metabolic Clinic Department of Metabolism, Santa Barbara Cottage Hospital, Santa Barbara, Calif. A simple statement of the fundamental principles of diet for the mutual use of physicians and patients. Illustrated. Price, $1.50. C. V. Mosby Company, St. Louis, 1925.

Medical Formulary. By E. Quin Thornton, M.D., Assistant Professor of Materia Medica, Jefferson Medical College, Philadelphia. Revised—1925, 12th Edition. Lea & Febiger, Publishers, Philadelphia.

The Medical Clinics of North America. Volume VIII, Number 2, Chicago Number, September, 1924. W. B. Saunders Company, Publishers, Philadelphia and London.

Students' Guide to Operative Surgery. By Alfred T. Basin, D.S.O., M.D., Assistant Professor in Surgery. Renouf Publishing Company, Montreal, 1923.

Pygmalion or the Doctor of the Future. By R. M. Wilson, M.D., Ch.B. E. P. Dutton & Company, Publishers, New York.

The Faith, the Falsity and the Failure of Christian Science. By Woodbridge Riley, Ph.D., Member of the American Psychological Association; Lecturer at the Sorbonne, 1920; Author of "American Thought from Puritanism to Pragmatism;" Frederick W. Peabody, LL.B., Member of the Massachusetts Bar; Author of "The Religio-Medical Masquerade;" Charles E. Humiston, M.D., Sc.D., Prof. of Surgery, College of Medicine, University of Illinois. Fleming H. Revell Company, Chicago.

Surgical Clinics of North America. Volume V, Number 1. Pages, 294, with 142 illustrations. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

Pediatrics. By Isaac A. Abt, M.D., Prof. of Diseases of Children, Northwestern University Medical School, Chicago; attending physician, Sarah Morris Hospital for Children of Michael Reese Hospital, Chicago. Volume VI containing 736 pages with 150 illustrations. Cloth, $10.00. W. B. Saunders Company, Philadelphia and London.

Collected Papers of the Mayo Clinic and Mayo Foundation. Vol. XVI, 1924. Edited by Mrs. M. H. Mellish. W. B. Saunders Company, Publishers, Philadelphia and London.

An Intermediate Textbook of Physiological Chemistry, with Experiments, Third Edition. By C. J. V. Pettibone, Ph.D. The C. V. Mosby Company, Publishers, St. Louis, 1925.

Symptoms of Visceral Disease. By Francis Marion Pottenger, A.M., M.D., LL.D., F.A.C.P., Medical Director, Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, Calif. A study of the vegetative nervous system in its relationship to clinical medicine. Third edition with eighty-six text illustrations and ten color plates. Price, $6.50. C. V. Mosby Company, St. Louis, 1925.

Development of Our Knowledge of Tuberculosis. By Lawrence F. Flick, M.D., LL.D., Co-founder of the Rush Hospital for Diseases of the Chest; Organizer of the Pennsylvania Society for the Prevention of Tuberculosis. Price, $7.50. Lawrence F. Flick, M.D., 738 Pine St., Philadelphia, 1925.

Massage and Therapeutic Exercise. By Mary McMillan, supervisor of Aids in Physiotherapy, Medical Corps, U. S. A., 1919-20. Second edition, reset. Pages, 331, with 17 illustrations. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia and London.

Inter-State Post-Graduate Medical Association of North America, St. Paul Proceedings, Oct., 1925. The Schueppert Printing Company, Milwaukee, Wisconsin.

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BOOKS RECEIVED FOR REVIEW

Contributions to Ophthalmic Science. Dedicated to Dr. Edward Jackson in honor of his seventieth birthday, March 30, 1926, by his pupils and colleagues in the United States. George Banta Publishing Company, Menasha, Wis.

Young's Practice of Urology. Based on a study of 12,500 cases. By Hugh H. Young, M. D., and David M. Davis, M. D., Johns Hopkins University, with the collaboration of Franklin P. Johnson. Two octavo columns totaling 1484 pages with 1003 illustrations, 20 being color plates. Per set: Cloth, $25.00 net. W. B. Saunders Company, Philadelphia and London.

Modern Methods of Amputation. By Thomas G. Orr, M. D., Professor of Surgery, University of Kansas. Price, $3.50, with 125 illustrations. C. V. Mosby Company, St. Louis, 1926.

Handbook of Diseases of the Rectum. By Louis J. Hirschman, M. D., ex-chairman, Section on Gastro-Enterology and Proctology, A. M. A.; Prof. of Proctology, Detroit College of Medicine; consulting proctologist to Detroit City Receiving, Evangelical Deaconess, Wayne County Hospitals, Detroit. Fourth edition revised and rewritten, with 252 illustrations, mostly original, and five colored plates. Price, $6.50. C. V. Mosby Company, St. Louis, 1926.

The Surgical Clinics of North America. Volume VI, No. 1, Philadelphia Number, February, 1926; 325 pages with 136 illustrations. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Diseases of the New-Born. By John A. Foote, M. D., Prof. of Diseases of Children, Georgetown University Medical School. A monographic handbook. Illustrated. Price, $5.00. J. B. Lippincott Company, Philadelphia, London and Montreal.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

Lectures on Nutrition. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa and Washington (St. Louis), 1924-1925. 243 pages, illustrated. Cloth, $2.50 net. W. B. Saunders Company, Publishers, Philadelphia and London, 1925.

This small volume is a collection of some very interesting lectures presented by men who are among the foremost authorities in their lines in American Medical Science. The discussions of energy metabolism by F. G. Benedict, Graham Lusk and E. F. DuBois will be intelligible to physicians and medical students. The presentation of muscle physiology by A. V. Hill is primarily for students of Physiology and Chemistry. The lecture on vitamins by McCollum is easily understood by even non-medical readers. H. M. Evans' presentation of the connection between nutrition and fertility will interest a great many readers because it is a summary of this very interesting and recent work in which Dr. Evans has had such a large part.

The book presents in a reasonably brief scope an excellent summary of these different fields and should be very interesting reading for the physician who desires to keep abreast of progress in these lines.—E. L. S.

Ultra-Violet Rays in the Treatment and Cure of Disease. By Percy Hall, M.R.C.S., England. C. V. Mosby Company, Publishers, St. Louis, 1924.

The author has written a very entertaining book, for the most part simply and untechnically presented. It seems suitable for the busy practitioner, who desires the theory and physiological effects of ultra-violet irradiation, and is suitable, also, for the intelligent layman. The chapters on Heliotherapy are well presented.

The author stresses the value of the Tungsten Arc Lamp as a source of ultra-violet energy, and regards it as of higher utility than the Mercury Quartz lamps, which are commonly used in this country. It would seem that his experience with the latter very efficient form of lamps was somewhat limited. It is undoubtedly true that both forms of lamps have their values. The Tungsten Arc Lamp is much cheaper, is perhaps not so fragile, but the exposures required are much longer. Aside from the present unreasonable cost of the Mercury Vapor lamps, they seem to the writer the most efficient form of apparatus for general use. Clinically, the results seem certainly to warrant their use in a wide variety of nutritional disorders. Dr. Hall's book, however, presents many interesting arguments for ultra-violet irradiation.—J. C. E.

A Text-Book of Psychology for Nurses. By Maude Muse, A.M., R.N. Illustrated. W. B. Saunders Company, Publishers, Philadelphia and London.

Before writing a book, especially a text-book, one should have a good reason for doing so. Miss Muse, in answering her own question "Why does the Nurse Need Psychology?" gives five answers. Only one of these five applies only to nurses.

"The nurse needs to understand people." So does everyone.

"The nurse needs psychology in making her own adjustments." Does that not apply to everyone?

"The nurse needs psychology because she is a student." All intelligent human beings are students, and will continue to be as long as they live.

"The nurse needs psychology in dealing with difficult patients." From the standpoint of a psychiatric nurse, I can say that the most difficult people with whom I have had to deal have not been patients.

I heartily agree with Miss Muse that a nurse needs psychology as a basis for Psychiatry, and I believe that

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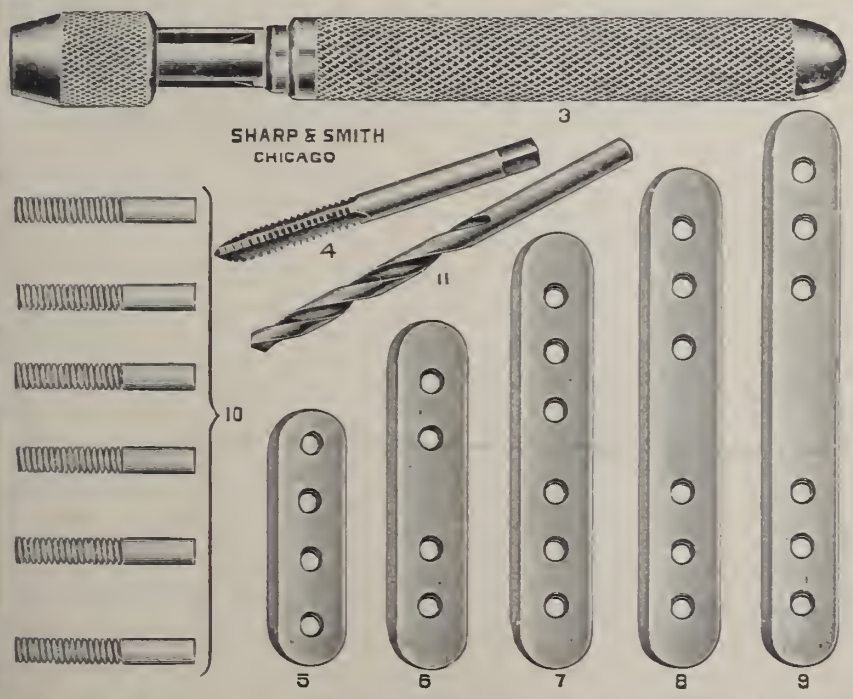

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See pages 637-640 Surgery, Gynecology and Obstetrics, May, 1914.

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the chapter on "Mental Disorder" would be of great help to the beginner in psychiatric nursing.

Where Woodsworth and James have taken separate chapters to explain Attention, Sensation, Imagination, Memory and Emotions, Miss Muse has grouped all these in one chapter. I doubt if any College or University would give credit for so little explanation of these mental functions.

The two chapters on Learning will be of excellent help for any student.—A. G.

Fifty From Wisconsin Attend A. M. A.; Sleyster Elected Trustee

(Continued from page 266)

the House of Delegates. His nomination was made from the Section on Physiology and Pathology. Prof. Steenbock was elected to Associate Membership in the State Society in 1925.

Representing the Medical Service of the U. S. Veterans' Bureau, Dr. Gilbert E. Seaman, Milwaukee, addressed the House of Delegates by invitation. Dr. Seaman's address on the problems and policies of the Medical Service was ordered printed in full in the Journal of the American Medical Association. It will be found immediately following this article.

The House of Delegates, by resolution from Dr. Brown's committee, commended a procedure for the introduction of expert opinion that is now to be found in but one state—Wisconsin. The original resolution was introduced by Dr. G. E. Follansbee of Cleveland, Ohio. The House also recommended a change in procedure for selecting the place of annual meeting. Under the change the Board of Trustees will make a survey of cities extending invitations and report not more than three suitable locations to the House of Delegates. From this list the House will make its choice. This procedure will be adopted to ensure the membership of adequate facilities for housing of the meeting and the upwards of 5,000 members who attend each session. Dr. H. M. Brown, Milwaukee, gave notice of an amendment to the procedure of the House of Delegates whereby all remaining business of the House is to be disposed of prior to election of officers on the last day of the session. This amendment will receive consideration at the 1927 meeting. Copies of resolutions adopted by the House will be printed in full in the June issue of this Journal.

According to the Daily Bulletin of the Association the following were registered in attendance from Wisconsin:

Barlow, Roy A., Madison
Batty, Arthur J., Portage
Bennett, J. F., Burlington
Boorse, L., Milwaukee
Brown, G. V. I., Milwaukee
Brown, H. M., Milwaukee
Chen, K. K., Madison
Comstock, Elizabeth, Arcadia
Crownhart, Mr. J. G., Milwaukee
Cushing-Lippitt, Eleanore, Milwaukee
Davis, Carl Henry, Milwaukee
Elliott, R. S., Gillett
Elvis, E. B., Medford
Fellman, G. H., Milwaukee
Foerster, Harry R., Milwaukee
Frost, Wm. D., Madison
Gaenslen, F. J., Milwaukee
Ganser, William J., Madison
Greeley, Hugh P., Madison
Hall, Henry H., Webster
Henke, W. A., La Crosse
Hovde, A. G., Superior
Israeli, Clara, Areadia
Kasten, H. E., Beloit
Kastner, Alfred L., Milwaukee
Ladewig, A. W., Milwaukee
Lockhart, Carl W., Mellen
McCracken, R. W., Union Grove
McIntosh, Roscoe L., Madison
Marshall, Victor F., Appleton
Nuzum, T. W., Janesville
Oehsner, Alton, Madison
Pember, J. F., Janesville
Reese, H. H., Madison
Rhea, Clarence Ward, Waukesha
Seaman, Gilbert E., Milwaukee
Sidler, Arthur C., Cudahy
Sisk, Ira R., Madison
Sleyster, Rock, Wauwatosa
Smith, Joseph F., Wausau
Warnshuis, G. J., Janesville
Youmans, Laurel E., Mukwonago

Problems of the Medical Service of the U. S. Veterans' Bureau; An Address Before the House of Delegates, A. M. A.*

BY GILBERT E. SEAMAN, M.D., F.A.C.S.
Chairman, Medical Advisory Group, U. S. V. B., Official Representative to the Dallas Session
Milwaukee

I deem it an honor and a privilege to bring to you the greetings of General Hines, the Director, and Dr. E. O. Crossman, the Medical Director of the U. S. Veterans' Bureau.

The United States Veterans' Bureau is, without doubt, one of the greatest relief organizations in the world. The administration of the Bureau presents problems and difficulties, the solution of which calls for the highest class of service.

During the formative period the Bureau's work

*Presented before the House of Delegates, A. M. A., by invitation, Tuesday, April 20, 1926, at Dallas, Texas.

The Wisconsin Medical Journal

Volume XXV | Milwaukee, June, 1926 | Number 6

Operations as Adjuncts in the Treatment of Pulmonary Tuberculosis with Special Reference to Induced Diaphragmatic Palsy*

BY J. L. YATES, M.D.

Milwaukee

Most operations now employed in combating pulmonary tuberculosis were designed and are used to rest and to compress lung, thus fulfilling the requirements man has decreed to be essential in treatment. As a rule operations have been performed late in the course of the disease upon debilitated patients after all other measures have proved futile. Despite these handicaps, lives have been prolonged and some patients have been enabled to enter occupations requiring limited physical exertion. Mortality rates attributed to operation are surprisingly low. These achievements have opened a pathway to further accomplishments.

The purpose of this communication is to show why operations designed to foster the powers of resistance and defense in consonance with nature's methods have, as adjuncts to the other therapeutic measures used at Muirdale, helped to expedite convalescence and reduce the extent of ultimate disability.

CONDITIONS IMPOSED BY THE DISEASE

Everyone who escapes premature death is infected with tubercle bacilli. The majority are insusceptible because they possess sufficient resistance to restrain the parasites somewhat as saprophytes. But even though they remain encapsulated for decades, perhaps in calcified lesions, some of the bacilli not only outlive the host, but retain a measure of pathogenicity.

The nature of the onset in the susceptible, the course of the disease and the characteristics of lesions are determined by fluctuant disproportions between parasitic virulence and viability and the host's powers of resistance, defense and repair. The parasites decrease or increase in numbers and in virulence according as they are repressed or are not repressed. Fluctuations in offense/defense ratios are manifest in variations in temperature and in the alternating aggressive and regressive phases of the disease.

Those of least susceptibility recover in spite of maltreatment, although their periods of invalidism can be reduced by favorable treatment, and the size and number of lesions are also similarly restricted. The more favorable and the earlier the treatment and the more exact the after care, the fewer and less virulent the parasites surviving in foci and the less the danger of recrudescence.

The moderately susceptible will recover after more protracted illness and with material scarring of lungs provided their immediate and remote treatment is favorable. They are liable to recrudescence, and recrudescences are usually less readily controlled than the primary illness.

The most susceptible are severely and permanently handicapped because their inadequate defense, inherently weak, has been further impaired. Recovery is impossible. Lives may be prolonged and their usefulness increased.

The survival of tubercle bacilli, even in the lesions of the insusceptible, proves that cures are impossible, and indicates that recoveries can be achieved solely by augmenting defense. Moreover, the ubiquity of tubercle bacilli assures repeated re-infections.

THERAPEUTIC PROBLEMS AND OBJECTIVES

Problems are sixfold: (1) To recognize the means nature employs in combating the disease successfully. (2) To discover causes of failure. (3) To perceive the natural readjustments developed to meet irremediable handicaps. (4) To employ such measures as will propitiate and enhance the effectiveness of natural or physiologic responses. (5) To restrict adaptations to those least harmful to general physiologic competence. (6) To establish such habits of hygienic living including occupations as will obviate recrudescences.

The objects are to vouchsafe to each individual the nearest approach to the ideal status of insusceptibility and to prolong useful life. Attain-

*Presented at the Milwaukee Academy of Medicine, May 11, 1926.

ments will be the greater if treatment is begun soon after onset.

It is noteworthy that more than 80 per cent of the patients admitted to Muirdale are suffering from the disease in advanced stages. Less than 10 per cent are in the incipient stages when they can be given most assistance. The fault is not entirely with the laity.

NATURAL METHODS OF DEFENSE AND OF ADAPTATION

Parasitic diseases are contests within living hosts between offense, the focal and disseminated irritants emanating from the parasites, and defense, the local and systemic responses to the consequent irritations. Recovery, whether spontaneous or promoted therapeutically, results from reduction of offense and augmentation of defense, which includes the conservation of the energies needed to continue the struggle against disease to a successful conclusion and to provide power for active life thereafter. Nature attempts first to destroy the micro-organisms in situ or to cast out the devils through ulcerative lesions. Failing in these efforts, she strives to inactivate and then to imprison the invaders in scar tissue. These are the ultimate primary and secondary defense responses between which are many gradations.

Primary defense is awakened if parasitic virulence is relatively high. It is successful when systemic responses are adequate, leucocytes are over-produced and specific antibodies are formed in abundance. Leucocytes and antibodies are delivered to foci of disease together with an increased supply of nourishment to support the extraordinary activities of reacting tissue cells and to assist them in subjugating the parasites. Primary defense possesses the invaluable element of counter offense. It is evidenced in the active proliferation of tissue cells, particularly those of higher differentiation, in infiltration of the lesion with leucocytes and plasma, and in the active hyperemia which is a prerequisite. Healing is effected with minimal residual scar and is the best result nature can obtain. It is the prototype of primary healing after operation and is the goal of therapy.

The cellular or proliferative lesions of primary defense are often misinterpreted because, when systemic responses are inadequate, they undergo prompt caseation and are associated with acute pneumonic processes or the formation of cavities. Their beneficence in the many has been overshadowed by the catastrophes of the unfortunate.

Secondary defense occurs when parasitic virulence is low at onset and energetic responses are unawakened or when primary defense, originally fair, is weakened as the disease progresses. Impotent to secure healing, secondary defense attempts to postpone the unfavorable issue. Systemic responses are of less moment; there is little, if any, counter offense. Instead of active proliferation of cells of higher differentiation, there is a progressive fibrosis. Hyperemia is notably absent; hypoemia is constant. Bacilli are not subjugated but enmeshed in scar tissue, and, like other stalwart prisoners of war, are eager to escape and to renew the conflict. Healing is approximated by maximal cicatrization with corresponding limitation of function.

Local lesions are the battlefields wherein campaigns against disease are won or lost. They are not only pathognomonic of the disease, but, because they are the best defense the host is capable of making, they indicate the direction of the tide of battle. Hence they are of diagnostic and prognostic significance and help to determine treatment. Lesions are tissue responses which are regulated by the quality and quantity of the blood delivered to them. Whence the great laws nature upholds to therapists, namely, to improve the quality of blood and to increase the quantity delivered to the foci of disease.

Tuberculosis, wherever it occurs, enforces hardships upon its victims, particularly increased metabolism with unwholesome expenditure of energy, systemic intoxication so commonly productive of anemia, and myocardial weakness. Pleuropulmonary tuberculosis, in addition to these hardships, imposes the handicap of interference with aeration of blood or external respiration, the basic function of the living.

External respiration is commensurate with vital capacity. It is normal if intrapleural negative pressures are unmodified, pulmonary elasticity is unimpaired and parietal mobility, particularly of the diaphragm which provides more than one-third of the motion, is unrestricted *provided* adequate amounts of good blood are propelled through the pulmonary circuit under appropriate pressures. The coordinated activities of the breathing and circulatory apparatuses, working through the air cell-capillary mechanism, assures the proper proportions between the volumes of intracapillary blood needing aeration, the volumes of air in the alveoli that provides the oxygen, and the expanses

of capillary endothelium and of air cell epithelium that facilitate the interchange of gases. The interchange is optimum when the lung is in mean inflation between full inspiration and full expiration. In this position, according to Cloetta, the largest unit volume of blood is delivered to each unit volume of lung with the least cardiac effort. Moreover, in this position the powers of resistance, defense and repair are highest in lung and in visceral pleura for man and other animals of thick pleurae. Ideal conditions to combat disease obtain if the excursion of the lungs above and below the level of mean inflation just suffices to provide the excess supply of blood secured by limited physiologic activity and to avoid the relative hypoemia inevitable with absolute rest. These conditions are fulfilled when an inactivated diaphragm is forced by positive intra-abdominal pressures into an abnormally high position. It is important to recognize that under these most favorable conditions intrapleural negative pressures are reduced but not abolished and that neutral and positive intrapleural pressures enforce hypoemia, which assures secondary defense. Secondary defense, as already stated, is a makeshift to prolong life at the cost of capacity to work.

Lesions of tuberculosis exert external or internal pressure upon or within the lung and reduce vital capacity. External pressure from pleuritic effusions or pneumothorax reduces inflation. So long as negative intrapleural pressures obtain, the lung is in a position of deflation. When they are abolished, the lung, under atmospheric pressure, is in a position of collapse. As the intrapleural pressures exceed the atmospheric, the lung is forced into positions of increasing compression. Internal pressure from lesions within the lung produces similar effects, i. e., local deflation, collapse and compression. If pressure exerted upon or within the lung causes deflation in excess of normal mean inflation, external respiration is impaired in amounts corresponding to the extent of the volume of lung affected and the amount of the excess pressure.

Nature safeguards the integrity of external respiration by an immediate automatic compensation for the lung incapacitated by either external or internal pressure that suffices to provoke a morbid degree of deflation. Deflation beyond normal increases the resistance offered by capillaries to blood flow in the lung affected. Blood in the pulmonary circuit which is without effective vasomotor control is, in accordance with hydrodynamic laws, deviated from capillaries, wherein resistance is greater, to adjacent capillaries, wherein resistance is less. Excess blood, acting through the air cell-capillary mechanism, causes compensatory physiologic emphysema, and thus continues the relationships between blood and air volumes and the expanses of endothelium and epithelium needed for aeration. These compensations are obtained by increased expenditures of cardiac energy. If the external pressure exerted by exudates or air causes collapse or compression, blood is diverted from the affected lung to the opposite lung and so long as the heart is competent to develop the higher pressure required, a contralateral compensatory emphysema and relatively normal external respiration are maintained. If the internal pressure of parenchymatous lesions suffices to cause collapse or compression, the emphysema is produced in the adjacent lung. Should the lesions be many and larger, they, too, provoke compensatory emphysema in the opposite lung, but again at the cost of increased cardiac effort. It is significant in this connection to recall that in the coordinated activities producing external respiration the more active agent is the circulatory unit, the breathing unit being relatively passive. Indeed, the extent of inflation prerequisite to normal respiration is maintained in part by the circulatory unit. Thus protection of the circulatory mechanism is the first consideration in the treatment of all intrathoracic diseases and is attained by preventing undue reductions in vital capacity.

Other facts are noteworthy. Patients suffering from tuberculosis live as long as their right heart muscle functions. The activities of those no longer suffering from active tuberculosis are restricted by limitations in myocardial power. Nature attempts to maintain external respiration at its optimum level during the acute stages of intrathoracic disease and to return it to normal during convalescence. The natural means employed are to inactivate reflexly the diaphragm on the affected side during the acute stages, thus affording the lesions with the richest blood supply delivered against the least peripheral resistance, and to promote physical activity and deep breathing during convalescence in order to reactivate the

diaphragm and thus restore external respiration to normal.

THERAPEUTIC MEASURES

The obvious requirements of procedures that will cooperate with natural processes are (1) to maintain or improve the quality of the blood; (2) to facilitate deliveries of blood to the affected lung with the least cardiac effort; (3) to prevent undue reduction in vital capacity during the acute phases of disease and to seek to raise it thereafter and (4) to continue suitable hygiene to protect against recrudescence and subsequent re-infection.

I. Rest, proper nourishment, fresh air and suitable exposures to sunshine are all needed to sustain the formation of both the cellular and non-cellular fractions of the blood. Deficiencies in blood formation, manifested in reductions in red cells, in hemoglobin, in lymphocytes, in hastened and distorted sedimentation rates, and in extraordinary toxicity, demand correction. Spleen-bone marrow extracts and tuberculin may help. Transfusions of unmodified blood, particularly from donors who have recovered from the disease, repeated if necessary, are the quickest, surest and safest means.

II. Inhibition of the diaphragm on the affected or more affected side by blocking the phrenic nerve automatically provides the reduction in intrapleural negative pressures and limits fluctuations of inflation and deflation above and below the mean which together assure the optimum blood supply. This physiologic procedure has been proved experimentally and clinically to increase pleuropulmonary powers of resistance, defense and repair. The high position and immobility of the diaphragm, be it remembered, do reduce vital capacity so that when feasible the nerve block should be made transient by crushing and not permanent by section or extraction. It also serves as a preliminary step before resorting to the more radical procedures—thoracoplasty and lobectomy. Not only does it provide a margin of safety, but may even obviate the need of these mutilating operations. Thoracoplasty, a compromise with necessity just as arthrodesis and amputation are compromises, is an undesirable measure. It is a procedure not of first but of second choice and its untoward features should be minimized. Instead of resecting parts of many ribs in one stage, it is better to remove a few ribs at a time and to excise them from behind the angle posteriorly nearly to the sternum anteriorly, as advocated by Delorme. Wide resections of a few inferior ribs may suffice and thus limit deformity. Thoracoplasty failing, lobectomy with cautery as performed by Graham is a final measure.

III. Undue reductions in vital capacity are caused by pleuritic effusions and pneumothorax. Pleuritic effusions should be aspirated repeatedly, according to the practice introduced by Bowditch in 1834, or, if this fails, subjected to air-tight, one-way intercostal tube drainage. Aspiration corrects pneumothorax.

IV. Continuation of proper hygiene, the avoidance of fatigue and lymphotoxic diseases, such as influenza, are quite as significant in preserving health as all other measures are in helping to regain it. High powers of defense and a margin of cardiac safety must be maintained if ultimate failures are to be avoided.

CLINICAL ASPECTS

Our experiences of intrathoracic injuries, acute, subacute and chronic non-tuberculous infections of lung and pleura proved the superiority of procedures that conform with physiologic requirements when they are employed not as a routine in vain attempts to effect cures, but used, suitably modified to satisfy individual needs, as adjuncts in promoting recoveries. We have attempted with the cooperation of the authorities and staff at Muirdale Sanatorium to add physiologic operations to other means for combating tuberculosis.

Doctor Kassowitz, the Clinical Director of the institution, will discuss the selection of patients who may be benefited by operation and outline the effects that have been observed. Treatment at Muirdale under his leadership and Doctor Bellis' management is so excellent, particularly for the few who, because of physical limitations of the buildings, can now be given proper exposures to sunlight, that improvement following operation must be attributed to the general care the patients receive as well as to surgical methods.

THE GENERAL PLAN OF TREATMENT

Paralysis of the diaphragm is induced to increase the amount of blood delivered to the affected or less affected lung and to minimize cardiac effort by blocking the phrenic nerve (phren-emphraxis), less often by extracting the peripheral segment (exaeresis), and, when exaeresis is not feasible, by section (phrenicotomy). Eighty-one of these minor operations have been performed. Doctor

Cairns will describe the methods found to be most reliable.

Many patients need blood transfusions. We are woefully handicapped in having insufficient donors. Enough observations make it certain that early and repeated transfusions will hasten and add to the completeness of recoveries and at times convert irrecoverability into recoverability.

Sufficient time is allowed to elapse after these preliminary procedures to determine whether or not patients will benefit from further intervention. Thoracoplasties are performed in several stages under ethylene anesthesia. The primary object of this operation is not to cause compression. Compression is produced when the pressure exerted upon the lung exceeds the atmospheric. Compression assures hypoemia of the lung affected, contralateral emphysema and imposes sufficient burdens upon the heart to limit activities and to curtail life. Neither is the object to cause collapse by subjecting the lung to atmospheric pressure. The object of resecting the fewest feasible number of ribs is so to alter intrathoracic conditions as will permit the lungs to assume naturally and spontaneously the position in which they can realize their optimum powers of defense and repair which are otherwise impossible. The effects are comparable to removing successive sections of the ridge pole of a tent. A few ribs are excised widely, beginning with the eleventh. Another interval is allowed to elapse to show whether further costatectomy is necessary. Occasionally all must be excised.

Lobectomy is demanded when disease is localized, cavities are large or numerous, and thoracoplasty is contraindicated or has been found inefficacious. Destruction of the lung by repeated cauterization as practiced by Graham is applicable. We have attempted to dodge the issue, but can no longer deny this means of relief to the limited number of patients who need it.

OBSERVATIONS WITH SPECIAL REFERENCE TO DANGERS AND FAILURES

The series of patients subjected to induced palsy of the diaphragm, though limited to eighty-one, is the largest recorded, and is the only one wherein the primary purpose was to influence the circulation in accordance with physiologic responses and not to enforce rest to satisfy therapeutic precedent. It is also unique in that the patients had been under observation in the same institution—a few for weeks, some for months, many for years, before operation. Their condition before and after operation has been checked by nurses' records, physical examinations, radioscopy and radiography, blood counts and estimations of sedimentation rates and vital capacity. The preoperative and postoperative care of many has been the same so that differences produced by operation are easily recognized. Notwithstanding the short interval since operation, the longest but eighteen months, and many too recent to be considered, the evidence presented is significant.

Phrenemphraxis, exaeresis and phrenicotomy are simple and almost dangerless operations. They are effective, if performed early, in enhancing primary defense and in adding a measure of primary to secondary defense. They frequently relieve intrathoracic distress and quite constantly eliminate or reduce hemorrhages from the pulmonary artery. Employed early as adjuncts in treatment, they help to hasten convalescence and to reduce the need and dangers of crippling operations. Evidence that proves the benefits of induced paralysis of the diaphragm is presented by postoperative improvement and controlled by subsequent decline as the diaphragm regains its motion. At times the difference is so pronounced that patients request a second blocking, or some desire exaeresis. Failures will occur if paralysis of the diaphragm is used as a panacea or in patients irreparably affected. Diaphragmatic paralysis causes contralateral emphysema in morbid states and in a small proportion of patients will provoke a pneumothorax in that side. This is a dangerous, possibly lethal, complication if it be unrecognized and is not corrected by aspiration. Injury to adjacent vessels and nerves can be avoided during operation. Exaeresis of the left nerve will tear the thoracic duct in some patients. Ligation is a simple and effective remedy. Exaeresis is unsafe if the pleural adhesions are dense. Under such conditions the greater pain provoked by traction is sufficient warning to desist and to divide the nerve as low as possible. This is virtually the sole indication for phrenicotomy.

The dangers of thoracoplasty are from overburdening the heart during operation and by creating so great alterations in intrathoracic pressures as to make postoperative readjustments too onerous. Failures are attributable to improper selection of patients and to too limited excisions in too few stages.

Cautery lobectomy, improperly conducted, is dangerous. Nothing further can be stated at this time.

SUMMARY

Nature has been developing human defense against tubercle bacilli in unerring obedience to immutable laws for thousands of years and has succeeded in making the majority insusceptible.

Man has been combating tuberculosis for centuries. At first, ignorant of the laws of life, he attempted to impose conditions that would, he supposed, eradicate the disease and realize his ideal, which he called a cure. In spite of the antagonism of the means employed to natural methods of defense and repair, progress was made and the precedent was established that daylight, scar tissue and rest were the essentials. Man has had the greater advantage for a few decades of working in decreasing ignorance of biology and her daughters, physiology, the guardian of health, and pathology, the goddess of disabilities.

Man is learning through biology how to play physiologic or healthful responses against morbid influence so as to minimize disabilities. It has been found that infection with tubercle bacilli can be restricted but not obviated, that susceptibility can be reduced but not abolished, that recoveries can be promoted but cures are impossible.

Such success as may be achieved depends upon cooperating with nature's methods which are to increase powers of defense and to conserve energies so that the parasites may be reduced in numbers and in virulence, the survivors imprisoned in cicatrices, restricted so as to interfere as little as possible with normal function.

Nature attempts to approximate insusceptibility by developing primary defense responses, and, failing, to postpone death by employing secondary defense.

Man cannot change nature's methods but he may so improve the responses individuals are able to muster spontaneously as to propitiate their opportunities for recovery.

Nature strives to curtail immediate disabilities by limiting to necessity the extent and duration of reduced function during the more acute phases of disease and to restore function by the earliest and most complete reactivation during convalescence.

Rest is incompatible with the active hyperemia essential to defense. Nature restricts inactivation so long as primary defense is possible and only employs total inactivation with its inevitable hypoemia and excessive cicatrization as a last resort.

CONCLUSION

Therapists can do no better than attempt to follow natural methods and to seek to supply and to intensify the defense that susceptible individuals are unable to muster spontaneously.

Observations upon eighty-one patients over periods of a few months are not supposed to prove that methods employed are correct in detail.

The evidence presented in this and the following communications suffices to demonstrate that induced diaphragmatic palsy, used in conjunction with other procedures, is safe and is followed by such improvement in general and local conditions as to warrant serious consideration.

REFERENCES

Wounds of the Thorax (Reprinted from The Oxford Surgery).

Surgical Treatment of Pleurisy, Am. Jr. of Med. Sci., 1920, CLX, 512.

Effects of Acute and Chronic Pneumothorax, Am. Jr. Med. Sci., 1923, CLXV, 1.

The Significance of Vital Capacity in Intrathoracic Therapy, Arch. of Surg., 1925, (Jan.). X, 477.

The Significance of Vital Capacity in Intrathoracic Therapy, Arch. of Surg., Part II, 1926, XII, 257.

RESERVE OFFICERS TO DUTY

Word is sent out to all Medical Officers, of the rank of Captain and Lieutenants of the Medical Department Organized Reserve Corps, that applications will be approved for detail to organizations in active duty with the summer training camps in the 6th Corps Area, i. e., Camp Custer, Michigan, Ft. Brady, Michigan, Camp Sparta, Wisconsin, Ft. Sheridan, Illinois, and Jefferson Barracks, Missouri.

It is necessary that those desiring detail send in their applications as early as possible to The Chief Surgeon, 6th Corps Area, 1819 W. Pershing Road, Chicago, Ill. Reserve Officers on this detail will receive full pay and allowances according to rank. Here is a splendid opportunity to get away from the worries of practice for an outdoor life, with all its change of scenery and occupation, and at the same time benefit by training in the camps where old and new associations add to the spice of life.

Evaluation of Surgical Treatment in Pulmonary Tuberculosis*

BY K. E. KASSOWITZ, M.D.
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Before discussing the rationale and effects of operations upon patients at Muirdale Sanatorium I wish to answer from the internist's viewpoint two questions that will occur to those who contend that the treatment of pulmonary tuberculosis is essentially non-surgical.

What can be expected from any therapeutic procedure that does not attack the tubercle bacilli directly? What are the possibilities of inhibiting the spontaneous evolution of the disease and limiting its dissemination in the human body without a specific bactericidal agent?

The answers to both questions are to be found in the reason why the treatment of diphtheria is extraordinarily successful. The pathogenic microbes are not destroyed by administration of antitoxin; neither are the lesions healed by the serum. Elimination of the diphtheria bacilli and tissue repair are accomplished by natural defense responses that have been protected and encouraged to develop through being relieved of part of their burdens.

Opportunities and responsibilities of therapists are to eliminate by any and all means the factors inimicable to natural defense. Treatment of tuberculosis should include every agency that will help the body to neutralize and to eliminate irritants and that will remedy mechanical handicaps to resistance, defense and repair. Operations, including blood transfusions, like other methods of treatment, namely, nutrition, rest, exercise, sunlight, radiation, tuberculin and medication, should be utilized whenever possible to influence the offense-defense ratios favorably for each patient. We are attempting to provide patients at Muirdale with every opportunity for improvement. Our greatest restrictions are lack of space to give proper heliotherapy and a sufficient number of donors for blood transfusions.

Next, I wish to summarize our conceptions of the physiologic effects of the two operations of established popularity, artificial pneumothorax and extrapleural thoracoplasty, in order to compare them with the methods we have employed.

Pneumothorax is induced in one pleural cavity for the purpose of reducing the inflation of the diseased lung. The results are restricted expansion, increased drainage of toxins through the bronchi and reduced drainage through the lymphatics, active hyperemia if the deflation is limited and passive congestion if it be greater and imposed inactivity.

The chief indication is the presence of cavities and the retention therein of secretions. The contraindications are the necessity for repeated inductions of air or gas, the pleural irritation sometimes leading to effusions which are liable to become infected, and pleural adhesions surrounding the diseased part of the lung that prevent deflation just where it is most desirable.

Extrapleural thoracoplasty produces changes similar to those occasioned by the less radical artificial pneumothorax. The function of the lung is reduced after incomplete, and may be abolished after complete costatectomies. Drainage of cavities through bronchi is optimal, but the blood supply is reduced as the extent of deflation increases. The advantages of thoracoplasty are the reductions in function of the diseased lung and permitting it to readjust itself spontaneously as may be most suitable. The disadvantages are the immediate operative burdens, the considerable strain placed upon the heart and the other lung, its permanence and irreversibility, mutilation and deformity.

Stuertz and Sauerbruch, the first to employ diaphragmatic palsy, purposed to produce compression as accomplished by induced pneumothorax. They advocated this method to combat basal lesions with cavities adjacent to the diaphragm, particularly in bronchiectasis. The effects upon the basal lesions were disappointing, but the same and better actions upon tuberculous lesions in the more usual location in the upper portion of the lung were noted by Goetze, Felix and others. So, too, in our experience the responses in bronchiectasis have been less favorable than in tuberculosis even when lesions were apical. The whole lung is affected by reductions in intrapleural negative pressures, not merely the lower lobes.

Interruption of the transmission of motor im-

*Presented at the Milwaukee Academy of Medicine, May 11, 1926.

pulses through the phrenic nerve and its accessory branches almost constantly produces flaccid paralysis of the diaphragm on that side. Motion ceases and positive intraabdominal pressure displaces the affected diaphragm upward, on the left side somewhat less than on the right. If the paralysis is complete, a paradox appears. The affected side rises during inspiration and falls during expiration, but the excursion is insufficient to be materially, if at all, effective upon the lung.

According to Hultkrantz, the diaphragm provides about 35 per cent of respiratory motion in health. When the diaphragm is palsied by blocking the phrenic nerve, the costal excursions are restricted reflexly so that respiratory motion is reduced to more than 35 per cent. Simultaneously the intrapleural negative pressures are reduced to about minus two. The resultant diminution of lung volume, though considerable, is less than is caused by pneumothorax carried beyond this pressure and by the more extensive thoracoplasties.

Heretofore operations have been performed upon the phrenic nerve so as to make the diaphragmatic palsy complete and permanent in treating tuberculosis. Two methods were advocated: Radical phrenicotomy (Goetze), a resection of the main nerve and all of its accessory branches; exaeresis (Felix), the evulsion of the nerve with all of its branches. Other methods were employed to produce temporary nerve block but not in tuberculosis. Crushing the main phrenic nerve and the accessory phrenic nerve employed by Yates differs from the operations previously used in man, and, in order to distinguish it from phrenicotomy and exaeresis and to emphasize its temporary effect (three to six months), it is called phrenemphraxis.

The advantages of phrenemphraxis are the restoration of diaphragmatic function and recovery of external respiration, which permits us to encourage patients to obtain its benefits, particularly if their disease is incipient, who should not be burdened with the disability of permanent palsy. The operation entails minimal risk, is harmless in its immediate and late effects, and causes the insignificant deformity of a small scar. It stops most intrathoracic discomfort, introduces subjective improvement, increases drainage for a few days, and then cough and expectoration are less. Reduction in elevations of temperature and in pulse rates are noted. Palsy of the diaphragm, if used before patients have been irreparably weakened, exerts a favorable influence upon hematopoiesis and sedimentation rates, and ultimately upon vital capacity.

Not all patients are improved, but, except for the one who developed a contralateral pneumothorax, none has been injured. Phrenemphraxis was first employed in the relief of patients whose disease was so far advanced that continuation of life was improbable without operative assistance. Some improved astonishingly; others were less favorably affected. We were and still are unable to determine which patients will and which will not be benefited so that those anxious for relief are given this opportunity even if they are apparently beyond help. Some, expected to improve, failed to do so; others, expected to be little benefited, have done well. We are attempting to relieve patients and not to acquire imposing statistics so phrenemphraxis is denied to none. Among those who have failed to be benefited, in none has the disease become aggravated, even when active lesions were present in the other lung, or life shortened.

As experiences multiplied and more patients became enthusiastic over their improvement, it was possible to use phrenemphraxis in treating earlier and less unfavorable types of disease.

EXPERIENCE BY GROUPS

The patients will be presented in groups according to the nature and extent of their pulmonary lesions, viz., (1) Lesions far advanced, even bilateral and active—patients request attempts to arrest their disease; (2) lesions far advanced, unilateral, extreme fibrosis—the type usually considered suitable for thoracoplasty; (3) lesions moderately advanced, unilateral — treatment with induced pneumothorax eliminated by adhesions — thoracoplasty promises recovery, but assures permanent disability and deformity; (4) lesions moderately advanced and unilateral — induced pneumothorax possible but declined in favor of phrenemphraxis; (5) lesions incipient, unilateral —induced pneumothorax not as yet indicated.

Group I. 17 patients; 4 improved; 5 unimproved; 5 have died since operation from meningitis, etc., 4 are in need of no further assistance; none at present would be benefited by thoracoplasty; none need lobectomy; 3 are too recent for classification.

Group II. 22 patients. Exaeresis was employed in this group to assure the utmost flaccidity

of the diaphragm as an introduction to thoracoplasty and to limit the extent of the costatectomies. A few improved sufficiently to escape further operation. 8 improved; 6 unimproved; 2 incomplete thoracoplasties; 1 complete thoracoplasty; 2 thoracoplasties recommended; 8 no longer need thoracoplasty; 1 are too recent for classification.

Group III. 23 patients; 14 improved; 3 unimproved; no thoracoplasty performed; 14 no longer need thoracoplasty; thoracoplasty indicated in 3 (?); 6 are too recent for classification.

Group IV. 18 patients; 12 improved; 1 unimproved (this patient died of hemorrhage from bronchial artery not attributed to nerve block); none need further intervention; 5 are too recent for classification.

Group V. 3 patients; 3 improved; none unimproved; none too recent for classification.

Diaphragmatic palsy has been induced in four patients suffering from non-tuberculous bronchiectasis.

SUMMARY

Induced paralysis of the diaphragm, used at first in treating patients suffering from far advanced, active and often bilateral lesions, proved to be well nigh harmless and at times helpful.

Improvement obtained in some patients encouraged others to seek similar benefits so that gradually this procedure has been utilized in treating those whose lesions were less extensive.

Attainments are reassuring and would have been still better had it been possible to have sufficient space so that more patients could receive systematic exposures to sunlight and had there been an adequate number of donors of blood for transfusions.

Some patients will need thoracoplasty, a few, lobectomy, to provide necessary relief, but the number can be reduced, and the danger and extent of more radical operations restricted if temporary or permanent phrenemphraxis (phrenic nerve block) is utilized first, perhaps with transfusion, but always as an adjunct to other methods.

Phrenemphraxis will accomplish everything attainable with pneumothorax induced so as to reduce but not abolish intrapleural negative pressures beyond which its use is not often justified.

CONCLUSIONS

Evidence obtained from observations upon only eighty-one patients for but sixteen months after operation suffices only to show that palsy of the diaphragm can be induced with minimal danger, that it is harmless to all and helpful to many patients.

Combined with other measures, it has helped to arrest the disease and to expedite recoveries; it has eliminated the need for more radical operations in some patients and has reduced the severity of such procedures as were unavoidable.

Paralysis of the diaphragm is an effective adjunct in treatment of pulmonary tuberculosis because it acts in accordance with natural responses, increases the amount of blood delivered to the lung and minimizes cardiac labor.

The scepticism of the profession in regard to the treatment of pulmonary tuberculosis is due to failure to understand the biologic aspects of the disease and, therefore, to appreciate the potentiality of procedures designed to assist natural defense. Scepticism is the basis of the obstinate conservatism and is the greatest obstacle to progress.

Although a final decision cannot be made, the evidence presented proves that harmless physiologic measures, which are materially helpful to many patients, may be advocated as worthy of trial *if employed as adjuncts to other measures.*

SPECIAL COURSE IN MILWAUKEE

During July and August there will be opportunity for a few physicians to take a post-graduate course in diseases of the heart at the Milwaukee County Dispensary, 5th and Grand Avenue, Milwaukee, Wisconsin. A course will last three weeks and will be given in the morning from 9:00 to 12:00. There will also be opportunity to brush up on chest examinations and on the handling of ambulatory diabetics. As the number in each course must be limited, applications should be made as soon as possible to the clinical director of the dispensary.

PROGRESS IN TREATMENT OF SKIN DISEASES

Fred Wise, New York (Journal A. M. A., May 8, 1926), states that the empiricism that in former years characterized the treatment of skin diseases has in a large measure given place to established scientific procedures, based on a much broader knowledge of medicine as a whole. What constitutes the real progress in the treatment of skin diseases today is the wide adaptation of the principles of general medicine to cutaneous pathologic changes. The constitution of the patient, his environment, the rôle played by focal infection, the blood chemistry, the problems of sensitization—these and many other factors are bound to play their important parts in this broad field of medicine.

Technical Aspects of Producing Diaphragmatic Palsy*

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Stuertz introduced paralysis of the diaphragm obtained by section of the phrenic nerve as a means of treating pulmonary tuberculosis in 1911. Subsequent experience showed that division of the main branch of the phrenic would fail to paralyze the diaphragm in about 40 per cent of patients and, further that permanent paralysis was not always desirable. Means have been sought to produce complete paralysis in each patient subjected to operation and to regulate the duration thereof as seemed expedient.

The phrenic nerve usually arises from branches of the third, fourth and fifth cervical nerves, which fuse and descend obliquely across the scalenus anticus muscle behind the subclavian vein into the thorax and upon the pericardium to the diaphragm. Anomalies are many and not uncommon. The branches from the cervical nerves may not fuse until they have entered the thorax so that instead of one main trunk lying on the scalenus anticus muscle there may be two or three branches, but usually placed close together. Accessory branches arise from the lower three cervical and first thoracic nerves and by exception from the twelfth cranial. More commonly the accessory phrenic accompanies the nerve to the subclavius muscle and joins the main trunk either in the neck or within the chest. There is a large combination of possible distributions of small nerve twigs that may or may not carry motor impulses, that may lie mesial or lateral to the main branch and may join it along divers pathways in the neck or chest. The main branch may lie to either side of the scalenus muscle or behind its lateral margin.

Simple means to identify physiologically all branches carrying motor impulses make a trifling procedure effective. Operations are performed with patients lying on a fluoroscopy table and the contour, elevation and mobility of the diaphragm are noted before the nerve is exposed. A transverse incision extending from two to three inches mesially from the lateral margin of the sternomastoid muscle is made in a natural skin crease just above the clavicle. A generous infiltration with ½ per cent novocain permits an incision to be made down to and through the fascia of the sternomastoid muscle, to reflect the fascia and to separate muscle fibers longitudinally, preferably in the thicker lateral portion attached to the clavicle. The deep fascia and subjacent fat are then infiltrated, in part to make a jelly-like edema in which fine nerve twigs are visible. The tendon of the omohyoid is retracted upward. It is easy to feel the scalenus anticus through an overlying pad of fat in which are glands, vessels and nerve twigs. The upper surface of the scalenus anticus muscle is exposed by blunt dissection avoiding injury to vessels, particularly the internal jugular, which must at times be dislocated mesially, and the transverse cervical artery, which can be stretched and dislocated. The phrenic nerve is found, and such twigs as may be accessory branches are identified. Manipulation of the phrenic or its branches usually causes pain referred to the back of the neck or to the thorax. Nerves causing pain in other distributions are not to be injured. Again the fluoroscope is employed. Clamping the main branch of the phrenic causes the diaphragm to contract abruptly. If the main branch provides the motor innervation, paralysis is complete, the diaphragm rises and frequently a paradox appears. Otherwise restricted motion continues and the accessory nerves are treated similarly until an effective degree of paralysis is obtained.

Transient nerve block lasting four days follows injecting the trunk with 1 per cent novocain. Longer periods of block can be obtained by freezing, by injections with different strengths of alcohol, by complete transverse section and immediate suture, by longitudinal division of the nerve sheath and transverse division of its fibrils and by crushing. Crushing over a distance of half an inch with appropriate pressure will block the nerve for from three to six months quite dependably and healing is the most favorable. Alcoholic injections are the least desirable means because repair is vitiated and it may provoke a stubborn painful neuritis in the adjacent brachial plexus.

If a permanent paralysis is desired or if it be more desirable than the degree of block obtainable through failure to locate all accessory branches,

*Presented at the Milwaukee Academy of Medicine, May 11, 1926.

exaeresis, advocated by Felix, is performed. The main trunk is divided and the distal segment extracted.

Three operations have been used: Phrenemphraxis for temporary nerve block, exaeresis and phrenicotomy for permanent paralysis. The immediate effects of these procedures have been noted in eighty-one patients. A paradox, the raising of the paralyzed side produced by increased intra-abdominal pressure occasioned during inspiratory contraction of the sound side of the diaphragm, occurred in twenty-one, elevation and immobility in forty-nine and elevation and restricted mobility in eleven. In these last, the less favorable results were noted before it was learned how to locate and identify accessory branches. Phrenemphraxis attained by crushing has been performed sixty-one times; by transverse division of nerve fibrils within the sheath, twice; exaeresis, sixteen times; and partial exaeresis with phrenicotomy, twice.

Phrenemphraxis is beneficial in reducing intrathoracic distress and in increasing the amount of blood delivered to foci of disease, i. e., active hyperemia. If other measures employed are as successful in improving the quality of blood and in conserving energy, the progress of the disease is arrested and recovery is propitiated.

The dangers of injuring important adjacent structures are many if this simple operation is performed injudiciously. One danger cannot be avoided. A complete paralysis of the diaphragm, when done for tuberculosis, causes a contralateral physiologic emphysema, which may lead to a spontaneous contralateral pneumothorax. This is serious only if unrecognized and not relieved by prompt and, if necessary, repeated aspiration.

Exaeresis is virtually certain to produce a complete palsy although one patient after this operation retained some, though limited, motion. Either extraction failed to disrupt accessory branches or the diaphragm was innervated atypically, possibly by the twelfth thoracic nerve. As a rule one to three collateral branches can be demonstrated on the nerve trunk withdrawn. The dangers are twofold. Over forceful extraction, particularly if pleural adhesions are dense, may lacerate unduly, and the usual force can injure the thoracic duct. If the pain caused by traction is pronounced and if the traction applied is unusually forceful without disrupting the nerve, it is safest to desist and to divide the nerve as low as possible. The distal end retracts and assures a sufficient hiatus between the severed ends to make reunion improbable. Patients drink milk about an hour before operation. If the thoracic duct is injured, an immediate discharge of opaque lymph into the wound discovers the injury and facilitates exposure of the duct which is ligated.

Healing of these small wounds is smooth, and, unless keloids develop, leaves little scar. Postoperative distress is trivial. Patients should be quiet for a few days while the intrathoracic circulation is being readjusted.

The good effects and little distress from these minor operations are reflected in the patient's attitude toward them. When the method was first proposed, only those desperately sick were willing to submit. Now some chose phrenemphraxis in preference to artificial pneumothorax; others, lethally affected, request it as a chance, however futile. Such requests are seldom denied. The object of treatment is to minimize psychic distress as well as physical disability and not to develop more impressive statistics. In consequence, some astonishing results have been obtained in patients supposed to be beyond benefits. The most convincing evidence of the help secured is presented by patients who improve after the nerve is blocked, hold their improvement until the diaphragm becomes active again, and then, as they begin to get worse, request another operation, even suggesting the advisability of a permanent block.

CONCLUSIONS

Palsy of the diaphragm can be induced by minor operations that are virtually without danger. But one patient was made worse, and that, because a contralateral pneumothorax was unrecognized and unrelieved.

Benefits have been notable in the majority of patients.

It would appear that so simple a means to assist nature's defense reactions, which is neither dangerous nor harmful, should be more generally employed, particularly in the early phases of the disease.

CANCER OF STOMACH

John William Shuman, Los Angeles (Journal A. M. A., April 10, 1926), reports the case of a man, aged 52, who had a pylorectomy at 33 for cancer, and died a little more than seventeen years later, well beyond the five year limit of recurrence. Only during the last year of his life did he have severe symptoms. An operation resulting in artificial feedings might have prolonged his life. This he refused. The cause of his death was extensive carcinoma of the cardiac end of the stomach.

Painful Feet in Children; Prevention and Treatment

BY CHESTER C. SCHNEIDER, M.D.
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Some inspired orthopedist once wrote that the human foot had not yet fully recovered from its surprise at having the entire body weight thrust upon it. This remark must have been based upon the variability of its structure and the multiplicity of its disabilities. Scarcely another anatomical region of the entire locomotor apparatus so early proves inadequate to its task as the foot. At least 25 per cent of the cases of foot disability presenting themselves to orthopedists are in children under 14 years of age, and about half of the remainder date the onset of their symptoms to this period. The importance of recognition of these cases is obvious, for with the establishment of corrective measures, much future disability can be overcome. The prophylactic care of the feet has a tremendous field of usefulness as yet unrealized.

This is definitely the problem of the medical profession and is not to be relegated to uneducated, irregular cultists and incompetent shoe men. The treatment and prophylaxis in this field is similar to that of the orthodontic specialist who straightens teeth and aligns jaws, in that it requires a fundamental conception of the anatomy, physiology, and pathology of the part, and slow, deliberate scientific treatment in its correction. How can those improperly grounded in these elements correctly determine the true nature of the affection, whether it is static or inflammatory, traumatic or circulatory, infectious or constitutional, and what else than mistreatment can their useless therapeutic merchandise be? If the medical man is to properly assume his responsibility, he must be fully informed. It is with the view to correlating and abetting the recent available literature on the static disturbances of the child's foot that this article has been written.

The evolution of the foot from the date of birth until maturity is an interesting process intimately connected with many of its static and functional disturbances. Spitzy has shown with carefully prepared frozen sections that the osseous alignment in the newborn foot is essentially the same as that in the adult. Its principal arches are not clearly discernable at this time, however, on account of the abundance of fat which surrounds them. In the course of time, through the natural diminution of this fat, the arches gradually reveal themselves. The scaphoid bone can be palpated readily about 12.5 millimeters from the ground during weight bearing. Likewise the normal original position of the foot is never in valgus, but, on the contrary, in varus, which it retains for some time and loses only gradually. The center of ossification for the internal and middle cuneiform does not appear until some months after birth and that of the scaphoid is delayed until the third year. Thus, the foot without a keystone is not prepared for the load of early weight bearing and frequently succumbs to this strain.

BEGINNING IN CHILDHOOD

Weakening of the foot begins most commonly in early childhood. For the unprepared work of standing and walking, the weak muscles, ligaments, and incompletely developed bones must be strengthened. This occurs in a measure through crawling which is the best training for the foot. Premature efforts at walking due to parental overzeal throws weight on an arch before it is sufficiently developed to bear it. This is particularly true when the child is overfed, heavy, fat, rapidly growing, bowlegged, knockkneed, weakened from infectious diseases or disuse, or rachitic. Under one or several of these conditions, the child walking with feet spread to gain lateral stability predisposes itself to knockknees and pronated feet. Tibial torsion, bow legs, and knockknees produce a faulty inward thrust on the foot preventing it from developing along the correct lines. Errors in tarsal development, particularly the scaphoid, contribute a considerable percentage of cases of faulty foot statics. An unusually large or crescenteric scaphoid may act as a wedge on the inner side of the foot and push the forefoot into abduction; contrarily, delayed scaphoid development causes the astragalus to sag. These structural faults increase the muscular load inducing muscle strain and stretching which in turn increases the error in alignment. The pressure of the body weight on the scaphoid and from it to the sustentaculum tali of the calcaneus, produces a definite pronation of the latter. A small percentage of cases of pronated, flat feet are congenital due to malpositions or maldevelopment in utero.

Fig. 1. Typical case of pronated feet showing faulty weight-bearing and strain of all medial structures.

Thus, very early in life, from a variety of causes, children become handicapped with weakened, pronated feet which are destined to become progressively worse as time goes on. Statistics from large hospitals, clinics, and private records indicate a surprising percentage of functional foot disability in childhood.

Not infrequently anxious parents bring their children to the physician because of toeing inward, fearing that they will not walk naturally in later life. The toeing in is the natural and normal position of the foot, the result of the slight varus position in the newborn, and is gradually lost in the course of time, occasionally developing into an outward turning of the feet, indicative of a developing flat foot. Certain changes in the leg may similarly be responsible for the toeing in, principally rachitic bowlegs and inward torsion of the tibia. This latter condition may exist alone without any other deformity of the bone. These cases, if untreated, become markedly aggravated until there is a well developed pronation and flattening of the feet, definitely visible to the untrained eye. Examination discloses a remarkable degree of relaxation of all the ligaments permitting excessive motion in all directions. On weight bearing, the foot sinks down flat in valgus. A similar relaxation may be found in the ligaments of other joints (Figures 1 and 2).

SHORT TENDO ACHILLES

Another important contributing factor seen in flat and pronated feet is a short tendo achilles. This condition, first comprehensively described by Schaffer and since then named after him, has received considerable attention from recent authors. It is seen in at least 25 per cent of the cases of weak feet, very commonly in children under 15 years of age. The normal dorsal flexion at the ankle of approximately 110 degrees is reduced to 90 or less due to a shortening of the soleus and gastrocnemius muscles. This may develop as a result of a bed confining illness during which the feet are allowed to remain in equinus for long periods of time, in consequence of incomplete recovery of the anterior muscles following an attack of infantile paralysis, from chronic toxemias, or injuries. It interferes with the normal mechanics of the ankle and foot, subjects the calf muscles and arch to repeated strain, everts and pronates the foot, reduces the stability at the ankle, and renders the gait awkward. The train of symptoms which may follow in its wake may vary from pain in the knee to excessive callus formation under the anterior arch, frequently including many of the usual symptoms of strained, pronated feet.

Fig. 2. Rear view of pronated feet showing prominent internal malleoli and everted heels.

Any or all of the foregoing conditions may be present in the same case, and a vicious circle frequently exists including all of them. Structural faults increase the muscular load inducing muscle strain and stretching which in turn increases the deviation in alignment. During the fast growing years preceding puberty, increasing weight is often associated with decreased tone of muscles and ligaments. This, together with greater bodily activity, may further stretch these supportive structures and result in the loss of what little arch may have formed before that time. If this is permitted to exist without correction, the unnatural strain due to abduction, pronation, and abnormal function, causes pain at the mediotarsal and subastragaloid joints which eventually results in a protective muscle spasm beginning in the peroneals and extending to other associated muscle groups. This spasm fixes the foot in abduction and pronation and acts as a serious deforming force to the entire foot. It is usually ushered in with considerable pain over the dorso-lateral aspect of the foot extending upward to the calf. Modified pressure influences lead to marked bony changes and with persistence of the deforming factors, the entire tarsal and metatarsal groups sink to the ground and the outspoken contracted flat foot is the final stage of the process. This, although relatively uncommon, is a seriously disabling condition requiring radical measures for its correction.

SYMPTOMATOLOGY

The symptomatology of weak and flat feet is variable and frequently indefinite. In the early stages, the condition is not often recognized, due to the absence of pain. Later, as the defect becomes more conspicuous, the prominent inner ankle bone, distortion of shoes, and awkward gait attract the parent's attention. While the symptoms are still vague, the child may show unusual irritability, disinclination to play, there may be pains in the knees, thighs, and back, and easy tiring is evident. At this stage the complaints are frequently interpreted as rheumatic or even so-called "growing pains" and no serious attention given the matter. As the condition continues, the feet themselves become the seat of pain which is more evident when the child first begins to walk in the morning or at other times when it goes about without the support of shoes. In the spastic and fixed cases, the pain may be of extreme grade, constantly present, and associated with swelling about the lateral aspect of the ankle. The soles of the shoes become worn down on the inner side, the counter may overrun the heel, and the leather over the inner ankles may be worn from the interference due to walking with the forefoot abducted. Finally, the condition may become totally disabling, the child being unwilling to bear weight upon the feet and crying out whenever an attempt is made to have it do so.

Examination of a child's foot must be made with a thorough conception of all the anatomical and physiological factors involved. Children are not usually so apt at describing their symptoms as adults and frequently deliberately withhold important facts because they fear the nature of the treatment to be employed. For this reason all the available objective evidence must be noted and correlated. Intelligent and systematic examination of both lower limbs and even the body is tantamount to successful treatment. Even the shoes should be inspected to note the manner in which they have been influenced by the faulty statics or kinetics of the foot.

TREATMENT

Every abnormal foot, irrespective of the presence or absence of pain, should be treated. By correcting slight defects in the early stages, much undue suffering and disability can be avoided. A painless foot with static errors today may be a painful one tomorrow. A weak or pronated foot is a potential menace and will succumb to strain at a time when it is most needed. I have come to believe that a considerable percentage of static foot troubles are begun in early childhood when walking is first attempted. Instead of permitting the child to crawl as long as it likes, over-anxious parents constantly urge it to toddle along in the upright position, throwing a premature strain on the delicate structures of the foot and permanently weakening them. The child should be permitted to walk only when it is ready to do this of its own accord, and if it desires frequently to sit or reverts again to crawling, it is for his best interests to do so. Even should he refuse to walk for long periods after he has once learned this art, we should let it rest with this; the walking is undesirable and he will gradually resume it of himself. Frequently parents make the mistake of leading children by the hand on the street. The child with its short strides tires quickly and is eventually dragged along instead of lifted up and carried

Fig. 3. Defective weight-bearing factor corrected by adhesive plaster strapping. Note adduction of the feet, restoration of arch, and correct alignment at ankle.

in the arms. Overloading the feet with early walking leads to exaggeration of the normally increasing pronation during the first two years, resulting in weak and deformed legs.

PROPER FOOT GEAR

After the child has once established himself in the art of walking, the proper foot gear for the delicate feet should concern the parents. Two questions at once arise: Is it good for the child to run barefoot, and, what kind of shoes shall the child wear? The first of these is not so easy to answer because it will depend entirely on the kind of a foot with which we are dealing. If the child has a normal foot without pronation or relaxation of the arch in an approximately normal body as regards weight, bone growth, nutrition, etc., barefoot walking on soft surfaces will do no harm. If, however, the feet have shown an early disposition to pronation, or relaxation of the ligaments, or the child is weak, rachitic or overweight, lack of proper support may do great harm to the foot. In the normal foot, running barefoot toughens the skin and gives free play to the muscles and bones which might otherwise be compressed or restrained by shoes, but where an inherent weakness exists, the slight static and functional errors become aggravated by uncontrolled use of the feet. As for the shoes, when any child begins to walk, he should be supplied with broad, heavy soled, low heeled shoes, with soft uppers of adequate size to permit of continued growth. The stockings must likewise be adequately large and round toed. Any tendency to restrict normal foot growth will sooner or later result in deformity or disability.

Should pronation or flattening of the foot or any symptoms relating to it be noted, careful analysis of the condition should be made and efforts to combat it inaugurated. One of the most important and useful measures that can be employed is the supination or club foot position walking exercise (Fig. 4). The foot is placed in the club foot position by strongly inverting and adducting it with the toes flexed. All the weight is thus borne on the outer margin of the foot and the little toe. This increases the power and tone of the toe flexors, supinators and adductors of the foot and stretches the opposing groups, thus strengthening and toning up the structures which maintain the arch. This method of walking must be used at all times when the correct shoes are not worn and is recommended as an exercise once or twice daily for intervals of from 5 to 10 minutes. If this is persisted in at all times for months or years, the relaxed ligaments regain their tone and the pronator muscles cannot go into spasm as they readily do in marked cases. The child must *never*

Fig. 4. Clubfoot type of walking useful when shoes are not worn, also as an exercise to develop structures which aid in maintaining arch.

Fig. 5. Rear view of feet in correct shoes with Thomas heels. Note correct alignment at ankle.

Fig. 6. Correct shoes with feet in attitude assumed while sitting to relieve strained structures.

walk on the sole of the foot when the shoes are off. Taking only a few steps on the unsupported foot will undo all the good that has been accomplished by correct shoes and other methods. Roller and ice skating are interdicted because they throw a great strain on the already weakened ligaments and muscles. This is due principally to the adducted and pronated position of the foot while skating. Either the heels or the soles or both should be elevated from $\frac{1}{16}$ to $\frac{1}{4}$ of an inch on the inner margin (Fig. 5). Raising it higher than this has no definite advantage and may aggravate the condition by causing the heel to slide in its heel seat and assume greater valgus. Ankle corsets have not been found to be of any special value in that they do not prevent pronation, and restrict the motion at the ankle, interfering with free use of the foot. Strapping the foot in supination with adhesive plaster is useful as a disciplinary measure to train the children to walk correctly with feet parallel and forward, and weight shifted to the outer margin of the foot (Fig. 3). It is quite necessary, moreover, in the symptomatic cases until pain is relieved.

SPECIAL APPLIANCES

If the degree of flattening, pronation, and general relaxation is quite pronounced, or if the child is excessively overweight, the foregoing measures alone may not be sufficient, and special steel plates are supplied. These are made according to the method of Whitman from plaster of Paris models of the foot. Great care and special skill are necessary in the making of these models so that the plates fit absolutely accurately and maintain the foot in the position natural to that foot before relaxation of the supportive structures develops. These plates should be entirely comfortable and worn in the shoe without any special consciousness of their presence. Such braces do not cause muscle atrophy or weakness, but on the contrary, by maintaining the bones in their correct alignment and keeping the muscles and ligaments of the foot relaxed instead of stretched, the normal arch is eventually restored. This is a fact based upon one of the most important laws of physiology that weakened ligaments and muscles cannot regain strength and tone while on the stretch.

Corrective shoes and braces alone cannot be expected to overcome fixed deformity such as spasticity or bone deformity, and in these cases special surgical measures are necessary. In these spastic cases, absolute cessation of weight bearing for two or three weeks, strapping the foot in supination at five to seven day intervals, manipulation of the foot with or without anesthesia and plaster cast, or resection of the peroneal tendons will produce

relief according to the severity of the symptoms. In the Schaffer foot with its shortened tendo-achilles, manipulative stretching or plastic lengthening must be performed. After the resistance has been overcome and an overcorrected position maintained for from one to two months, plates and corrective shoes are supplied and worn until a cure has been achieved.

CONCLUSION

Our object must be to restore these feet to normal function and weight bearing, eventually without the aid of artificial devices. Most of these cases can be restored to good function provided that the patients cooperate and do not use the feet excessively during the period of recovery. The restoration of normal locomotion is of the greatest significance to the health of the entire body. It stimulates metabolism, overcomes obesity, and allays a great many evils and postural disabilities that set in on the erect body.

The care of the child's foot must more and more concern those who are responsible for it. The highly disproportionate amount of foot disability in otherwise healthy young adults is directly attributable to faulty foot care in infancy and adolescence. It is much easier to prevent defective feet than to cure them. Parents must be taught how to supervise the development of the child's foot and recognize defects early so that proper measures may be instituted to overcome them. Correction of foot defects must be scientific and comprehensive and should not be entrusted to those who are improperly qualified to do so.

A Comparison of Malarial and Tryparsamide Therapy in Paresis*

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During the last fifteen years the treatment of neurosyphilis, especially of general paresis, has become more and more complicated. It was not many years ago that the treatment of paresis consisted only in the administration of mercury and potassium iodide. Since 1910 the different arsphenamines in combination with mercury have been used, but there is a large group of paretics in whom arsphenamine does not give the desired results.

At Nonne's clinic in Hamburg, the treatment of paresis with the newer methods of administration of arsphenamine was carefully studied. We could not find clinical improvement after intraspinal treatment nor even after injecting the arsphenamines in the carotid arteries. Finally it was concluded that arsphenamines aggravate the clinical picture of paresis. The general opinion in Europe at present is that the arsphenamines are not effective and are contra-indicated in the treatment of paresis. The old time therapy, mercury and potassium iodide, is used with variable results.

In 1917 Wagner von Jauregg at Vienna recommended malarial treatment in general paresis. Psychiatrists have profited by the knowledge that diseases of the central nervous system are favorably influenced by acute infectious diseases. With this point in view the Vienna school started their studies. To review in detail the evolution of the malarial treatment of paresis would be beyond the present communication. Suffice it here to say that the idea of malarial therapy originated with Wagner von Jauregg who, having noted the occurrence of remissions of symptoms in paresis following a febrile disease, proposed to reproduce this situation by the use of agents which would provoke a febrile response. Experimentations with fever-producing agents such as tuberculin, anti-typhoid vaccine, milk, relapsing fever and malaria showed that malaria had the most striking effect upon paresis in producing the longest clinical arrest.

Before malaria plasmodia are administered to a patient suffering from paresis, it is necessary to test out his drug idiosyncrasy against quinine to prevent symptoms of cinchonism later when the malarial infection has to be treated.

Since December, 1924, we have treated, at the Wisconsin Psychiatric Institute, 64 paretics with malarial inoculation and the results that we have so far observed would not be without interest, although the relatively small series of cases can have no great value from a purely statistical standpoint.

*Presented before the University of Wisconsin Medical Society, April 15, 1926.

The technical procedure of the artificial malarial infection is carried out as follows: After a period of clinical observation, which includes record of the weight and usually one or two lumbar punctures, the patient is inoculated intravenously with three to five c.c. of blood obtained from a patient suffering from tertian malaria. The exclusive use of the intravenous injections is advisable because of the certainty of a "take" and because of the shortened and more uniform duration of the incubation period. Such a small injection of blood has never produced any anaphylactic reaction. After 4 to 8 days the patient thus infected has definite febrile attacks beginning with a chill. The tertian type mostly changes into a diurnal type.

Our Madisonian malaria strain has gone through 64 successive passages from patient to patient without losing its effectiveness or becoming quinine resistant. During the period of malarial paroxysms with temperature of 104, or above, one never sees a leucocytosis. Complications have very rarely been encountered, such as herpes, mild jaundice, or convulsions. Nevertheless, the heart function, the blood findings, the bowels, genitourinary tract, and the diet must be carefully watched. The total number of chills should be from 8 to 15, according to the constitution of the patient. It is true that the patient becomes very anemic and the associated decreased appetite is followed by a marked loss of weight. These conditions do not affect paretics greatly as they stand these discomforts with the equanimity typical of paresis. Furthermore, recovery takes place within approximately 2 weeks after quinine medication.

Of the cases studied abroad, 10 per cent died due to intercurrent diseases and none as the direct result of the artificial malarial inoculation. From the material of the Wisconsin Psychiatric Institute, which includes far advanced, emaciated cases, 7 or 10.9 per cent have died.

The treatment of the malaria itself is conducted as follows: Quinine sulphate, grs. 6, given for 12 days twice a day. Three days rest period, and from this point 3 days of treatment are alternated with 3 days of rest until a total of about 250 grains of quinine have been administered. Quinine is so efficient in dealing with inoculation malaria that but one case has had a relapse. During the time of the psychic convalescence mercury rubs are given.

The patients abroad have been clinically and serologically controlled for more than three years while in full clinical arrest and while working at their former trades. Our understanding of a true clinical arrest includes general health, good behavior and conduct, absence of psychotic symptoms, possession of insight, possibility of being able to earn a livelihood, although stationary neurological symptoms may be present and serology may remain positive.

Our patients are divided into three groups: 50 per cent were improved showing only slight psychotic and somatic disturbances; 20 per cent showed remarkable improvement and were clinically arrested, their mentality returned to normal, and, according to statements of the relatives, these patients were completely restored to health; 30 per cent remained without change in their clinical and mental symptomatology. From the material at the Wisconsin Psychiatric Institute 10 per cent were markedly improved and have been discharged; 25 per cent are working at the Mendota farm and the rest are easier to handle from an institutional standpoint.

CLINICAL IMPROVEMENT

The clinical arrest obtained after malarial inoculation is quite similar to that of spontaneous origin; they differ chiefly in frequency and duration. Spontaneous restoration occurs in 5.6 per cent to 11.4 per cent of untreated paretics according to German and American statistics. Our best results were obtained in the acute manic form. No definite forecast can be made as to how soon the arrest will follow the above therapy; it may occur soon after the cure of the malarial infection or not until several months later. The most striking effect is the clinical and mental improvement which is not paralleled by pronounced serological changes. There are serological changes but, as a rule, the serology after malarial inoculation is refractory. The efficiency of this treatment is based on no known principles. We know that the temperature in itself is not sufficient to kill the spirochetes; furthermore, we know that the production of a leucocytosis cannot be accepted for it has been proven by us that throughout the course of an uncomplicated malarial infection the leucocyte count remains within normal limits. It has been suggested that the phenomenon is due to an influence of a biologic order but this suggestion

is purely speculative. Artificial malarial infection with tertian malaria does not endanger the patient.

Clinical arrest was obtained at Nonne's in 20 per cent over a period of more than 3 years and in 10 per cent here. Improvement was obtained abroad in 50 per cent and in 25 per cent here.

TRYPARSAMIDE THERAPY

I was convinced when I came to the States that antiluetic therapy with drugs in paresis was of no value at all. Therefore I was very much interested in the results obtained by Dr. Lorenz, Dr. Bleckwenn, and others[1], with tryparsamide in paresis. It is not necessary to recall the development of tryparsamide but the careful experimental studies of Dr. Loevenhart and his co-workers here, and of Dr. Brown in New York[2], made the clinical investigation possible.

The literature on the use of tryparsamide in paresis is still limited but the favorable results, first reported from our University, are of the greatest significance in the development of the treatment of paresis. We are getting somewhere in the treatment of this horrible disease which until now has not been possible with any other antiluetic drugs. Certainly the older methods of treatment have sometimes produced results but only too often they have failed. Cases of paresis refractory to other forms of treatment have been benefited by tryparsamide in combination with mercury.

Tryparsamide is the sodium salt of N-Phenylglycineamid-p-arsonic acid and has a very feeble spirocheticidal action. The drug is a white, odorless, tasteless, crystalline solid and extremely soluble in water. It is administered intravenously in 3 gm. doses dissolved in 10 c.c. of sterile, freshly distilled water. This solution is given at intervals of one week and for a period of 8 weeks. At the same time mercuric salicylate is administered intramuscularly in 1 gr. doses alternating with the eight tryparsamide injections. This constitutes one course of treatment. After a rest period of 5 to 8 weeks similar courses are repeated until there are no more clinical and serological evidences of activity.

CLINICAL RESULTS

The difference in the percentages of clinical arrests in paresis after tryparsamide medication given by the different authors is due to the type and not so much to the degree of duration of paresis. We know that patients with very recent symptoms and apparently in the best physical conditions are not infrequently very much more rapid in their demise than those in whom the disease itself is of much longer duration but progresses more slowly. Why is it that the percentage of recoveries in paresis is not universal? Tryparsamide is not an absolute cure for all cases of paresis but we know also that many cases of paresis do not respond to any form of therapy. These cases, refractory to every intravenous administration of antiluetic drugs, are also refractory to the intraspinal therapy even if followed by spinal drainage. It is our belief that we can produce clinical arrest in over 30 per cent and that we can decidedly improve 66 per cent of our cases of paresis with tryparsamide and mercury. Besides this clinical improvement there are marked serological changes; 73 per cent of the blood Wassermanns have been changed to negative and 47 per cent of the spinal fluid findings have become negative after 16 to 48 injections of tryparsamide.

The danger of producing optic nerve changes with tryparsamide is practically nil if a thorough eye examination has been made previous to the administration of this drug. A check-up on our material over 7 years shows that the treatment did not seem to influence the pathological changes observed in the fundus. We know that about 50 per cent of syphilitics have changes in vision, pupils, reflexes, fundi and perimetric fields without antiluetic treatment. Only 7 per cent of all our cases had visual changes after tryparsamide treatment, for the most part a transient visual disturbance characterized by blurring, dimness of vision, decreased fields and optic atrophy. As soon as any change in the vision or fields could be demonstrated, or was even complained of, treatment was stopped. We do not believe that tryparsamide has a definite toxic effect if administered with the proper precautions and we further believe that the use of tryparsamide is not contraindicated even with pathological changes in the fundi. This was corroborated by Lillie of the Mayo Clinic. It should be noted that tryparsamide has a definite effect on nutrition. The majority of our patients gained decidedly in weight (an important factor for patients in a poor state of nutrition), and they developed a feeling of physical well-being.

Without making any pretense at setting forth final conclusions in the matter, in view of the difficulties of establishing adequate control in such a clinical investigation as general paresis, we have to outline our criteria of clinical arrest. Abroad, clinical remission is the aspired goal; here, in addition to the clinical arrest, more attention is devoted to serological improvement. Abroad, the permanency of a clinical remission in paresis even with unchanged serology is not questioned. Clinical syphilis without positive serological changes is not uncommon, while, on the other hand, patients without clinical symptoms may show positive serology. Even though a negative blood and spinal fluid Wassermann is by no means a proof of the cure of syphilis, in a case showing no clinical symptoms over many years, still a positive Wassermann reaction in a similar case must be looked upon as evidence of a latent luetic focus. The ultimate goal to be reached in developing antiparetic therapy must be to find a combination of methods of treatment which will render all patients permanently free from progressive neurological symptoms and produce a state of complete serological negativity.

SUMMARY

Malarial treatment in paresis leads to clinical improvement in about 30 per cent of cases within a month after the cure of the malarial infection. Tryparsamide therapy in paresis requires 4 or 5 months to bring about improvement, but is decidedly beneficial in about 60 per cent of cases. Malarial therapy is weakening, and cannot be employed in emaciated patients. Tryparsamide therapy usually results in marked physical improvement, and if properly controlled, is not harmful to the optic tract.

REFERENCES

1. Lorenz, W. F., Loevenhart, A. S., Bleckwenn, W. J., and Hodges, F. J.: Jour. A. M. A., 80:1497 (May 26) 1923. Lorenz, W. F., Loevenhart, A. S., Reitz, T. F., and Eck, C. P.: Amer. Jour. Med. Sci., 168:157 (August) 1924.

2. Brown, W. H., and Pearce, L.: Jour. Exper. Med., 30:417, 437, 455, 483 (November) 1919; 33:193, 1921.

DISCUSSION

Dr. A. S. Loevenhart: Tryparsamide probably does not act as a spirocheticidal agent in the central nervous system. Apparently both tryparsamide and malaria alter the tissue response to the spirochetal irritation. Studies in our laboratories indicate that the Wassermann reaction is a measure of the tissue response to the spirochete. Apparently tryparsamide causes a greater effect in paresis than malaria because it alters more profoundly the Wassermann reaction. It is interesting that there is a considerable group of refractory patients who do not respond to either form of treatment. Dr. Lorenz has repeatedly emphasized the fact that the clinical picture of two paretics may be identical but autopsy reveals that the brain tissue in one case may actually be destroyed whereas in the other it is intact. It may be that this destruction of brain tissue offers an explanation of the failure of treatment in certain cases of paresis, whereas in other cases the syphilitic process proceeds far enough to reduce the circulation to the point where the cells will not function and yet remain alive. The latter class of cases would be the one which would be improved by tryparsamide or malaria therapy.

Dr. W. J. Bleckwenn: The relation of tryparsamide to amblyopia or optic atrophy is interesting. It has been shown that syphilis itself causes far more damage to the optic tract than tryparsamide and, furthermore, that arsphenamine is as toxic for the eye as tryparsamide. The amount of tryparsamide administered certainly has no bearing upon the possible development of eye symptoms. One patient has received 800 grams of tryparsamide in four years with absolutely no eye symptoms. It is to be emphasized that, in treating paresis, no standardized routine treatment is to be employed. Each individual patient presents a separate problem and the type of therapy and the dosages to be employed must be determined by careful study of the patient.

A CORRECTION

In an original article entitled "Obesity: Endocrine or Dietary" published in the May issue of this Journal, page 242, a printer's drop and transposition occurred which we deeply regret. In speaking of carbohydrates and fats, Dr. Sevringhaus' article should have read as follows (italics indicate where error occurred):

"Carbohydrates and fats are used by the body as sources of energy, and the excess is stored as fat for later use, or as a mechanical protection against injury and cold. The carbohydrates form the main part of the energy yielding food for many people, hence the injunction to cut the starches if weight reduction is desired. It is, however, possible to have the fat furnish as much as 75 per cent of the total energy in the diet of an individual doing ordinary work, with perfect safety and palatability. Greater amounts of fat than this are seldom justifiable because of the inability of the body to oxidize fat completely without the simultaneous oxidation of sugar. When fat is burned in the body we consider that it is broken down into its constituents, fatty acids and glycerol. The glycerol is oxidized in much the same way as sugar, that is with the aid of insulin. The fatty acids are entirely different. Their molecules are comparatively large. In the process of their oxidation carbon dioxide and water are produced as the molecules are being decomposed, until there is a residue known as diacetic acid. This diacetic acid cannot be oxidized except in the immediate presence of glucose which is being simultaneously oxidized.

In this latter case, which is the normal occurrence, carbon dioxide and water are produced from both the glucose and the diacetic acid, and the combustion is completed in such a fashion that the final or waste products are readily eliminated by the lungs and kidneys. If, however, there is an insufficient amount of glucose undergoing oxidation part of the diacetic acid will remain unoxidized. *It then becomes a toxic material due to its acidity, and some of the body's reserve of alkali is consumed to neutralize it and protect the body from damage by acid. As this diacetic acid accumulates* in the body a portion of it spontaneously decomposes into acetone, which is excreted by the lungs and kidneys. Acetone is at least mildly toxic on its own account. Also the body is able to change the diacetic acid to beta hydroxy-butyric acid, which is no less toxic than the diacetic acid. This, like the diacetic acid, uses up alkali to become neutralized. Eventually both these abnormal acids are excreted via the kidneys, but in the process they will carry along some of the alkali. There is thus a depletion of the alkali reserve in the body. The process of formation of these abnormal decomposition products from fatty acids is known as ketosis, because the three compounds are known to chemists as 'ketone bodies.' The ketosis may lead to acidosis if it is severe enough and long enough continued. The process is the same, whether it occurs in fasting, fevers, or diabetes. In the first two conditions, there is a lack of carbohydrate due to lowered intake. In diabetes there is inability to burn carbohydrate in adequate amounts even though it be present."

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

Scarlet Fever; A Review of the Recent Advances in its Diagnosis and Treatment

BY W. D. STOVALL, M.D.

Madison

Until the latter part of 1923 and the early part of 1924 the cause of scarlet fever was not certainly known. For years many men in the medical profession had held a belief in the streptococcus theory of causation. This, I believe, was not altogether without substantiation. Many experimenters had produced evidence which supported this idea. Notable among these was Dochez, who had produced a disease in albino guinea pigs, by injecting cultures of streptococci secured from scarlet fever patients, a disease which he described as being similar to scarlet fever in the human. The pigs showed pealing over the pads of their feet and during the disease showed a discoloration around the nose, which was considered as evidence of a rash.

Dochez and Tunicliff, working with hemolytic streptococci, had described many of the cultural characteristics of cultures of these organisms and thought that they were able to separate all other hemolytic streptococci from that which caused scarlet fever by agglutination tests. They also thought that the scarlet fever streptococcus did not produce a soluble toxin. The Dicks had been working upon this problem, the cause of scarlet fever, and had made several publications, one of which was an attempt to demonstrate immunity to further attacks by people, who had had scarlet fever, by the intradermal injection of killed streptococci. These experiments were not successful.

It was not until the latter part of 1923 that results of experiments, which proved with a high degree of certainty that the cause of scarlet fever is a hemolytic streptococcus, were reported. This report came from Drs. Geo. F. and Gladys Henry Dick and was entitled "Experimental Scarlet Fever."

They reported the isolation of a hemolytic streptococcus from pus secured from the finger of a nurse, who had contracted a mild but typical case of scarlet fever from a patient, whom she was nursing. The cultural studies of this organism showed it to be hemolytic on aerobic sheep's blood agar plates and that it fermented certain sugars with the production of acid but did not ferment dulcite or insulin. This report further recounts the experience of people, who volunteered to have their throats swabbed with previously sterilized

cotton swabs which were saturated with a recent transplant of this hemolytic streptococcus. Five people were accepted for the experiment and three came down with mild but typical scarlet fever. These were the first human cases of scarlet fever produced experimentally and proved that this strain of hemolytic streptococcus produced a disease which clinically was scarlet fever.

Having thus satisfied themselves that this organism was the cause of scarlet fever, the next logical procedure was to determine if other or similar streptococci isolated from scarlet fever cases would produce this disease. As a result of their study the Drs. Dick reported the finding of two types of hemolytic streptococci, as far as their sugar fermentations were concerned, which would produce scarlet fever. Agglutination tests, however, did not separate these organisms from other streptococci of totally different pathogenic properties.

At this juncture, in view of our experience and knowledge concerning the cause, prevention and treatment of diphtheria, it was important to know whether or not this organism isolated by the Dicks and which produced scarlet fever in susceptible individuals produced a soluble toxin. That is: a toxic substance which could be separated from the bacteria themselves when they were grown in fluid cultures and these cultures were properly filtered.

A SOLUBLE TOXIN

Again the Dicks answered this question and reported the production by the hemolytic streptococcus of scarlet fever of a soluble toxin. This made possible a test for susceptibility to scarlet fever by a test exactly analogous to the Schick test in diphtheria. The Dicks reported the use of a skin test for recognizing susceptibility to scarlet fever. This consisted of the intradermal injection of the bacteria free filtrate of cultures of streptococcus hemolyticus scarlatinae. The filtrate of these cultures was diluted so that 0.1 of a c.c. would just produce a reddening of the skin, at the point of inoculation, in susceptible people. This test was a specific one and was not given by those who possessed enough antitoxic immunity to neutralize the toxin injected. In other words: those who did not have an immunity gave a reddening of the skin about 1 to 2 mm. in diameter which was indicative of a positive reaction. Those who were not susceptible gave no reddening of the skin, which indicates a negative reaction. This test was dissimilar to the Schick test in that it showed in 12 to 18 hours and faded out soon after the first 24-hour period. This meant, of course, that it must be read in the first 24-hour period.

One of the chief clinical applications of this test is its value as an aid in the differential diagnosis of a scarlet fever rash from similar eruptive fevers. A patient sick with scarlet fever is susceptible by Dicks test, the name given the new test for determining susceptibility to scarlet fever toxin, up to and sometimes through the fourth day of illness. After this period they are not susceptible. It is evident, therefore, that any doubtful case of scarlet fever, which gives a negative Dick test during the first three or four days of the illness, is not scarlet fever. It is also apparent that a positive Dick test five or six days after the onset of the disease indicates that the patient has not scarlet fever. By the fifth to sixth day of scarlet fever the patient has developed enough antitoxin to neutralize the toxin in the Dick test and the test, therefore, is negative at this period of scarlet fever. The test is useful, in case of disagreement as to the diagnosis, to the health officer in his decision as to whether quarantine shall be established, and it is usually used before and always after active immunization with scarlet fever toxin, which acts in a manner similar to toxin—antitoxin in diphtheria.

After the discovery that the streptococcus hemolyticus scarlatinae produced a toxin the next desirable information was to know if this toxin could be used to immunize children against scarlet fever as toxin-antitoxin does in diphtheria and also if horses could be immunized and caused to produce an antitoxin which would have therapeutic value. Both of these problems were investigated by the Dicks and they reported in the early part of 1924 the successful use of scarlet fever toxin for active preventive immunization and that horses properly inoculated with this toxin produce an antitoxin just as they do for diphtheria toxin when properly injected. During this time Dochez had produced antitoxin by a different method of injecting his horses, and a preliminary report of the use of this antitoxin in treatment was made by Drs. Blake, Trask and Lynch, early in 1924.

This, then, brings the treatment and prevention of scarlet fever to the same point of development where diphtheria has been for several years. That is: the cause is known, there is a means for active immunization, and an antitoxin for treatment and

emergency passive prophylaxis. However, I think that the facts need careful scrutiny so that we may know just where each of these agents may be successfully used in clinical and preventive medicine.

The laboratory aid in the diagnosis of scarlet fever has been little, if any, advanced. It is not possible by culture to easily distinguish the hemolytic streptococcus of scarlet fever from other forms of these organisms. In fact, in almost all cases of sore throat or nasal colds hemolytic streptococci, which so far as morphology, staining characteristic and type of hemolysis is concerned, are present. And even in normal throats it is not infrequent that streptococci producing the same type of hemolysis are found. The method now employed involves too much detail and for that reason uses up too much time to be a practical clinical test or a test which can be used in a routine manner in searching for carriers. It is apparent then that from the standpoint of preventive and clinical medicine much has yet to be done to make the information recently discovered, concerning the cause of scarlet fever, available for routine practice.

DICKS' TEST

Dicks' test has reached that state of development when it can be and is used as an aid in the diagnosis and prevention of scarlet fever. Its indications in the differential diagnosis of the disease have already been discussed. Because the reaction, if it appears, shows up in a relatively short period after the injection, it is particularly useful in families where a number of children have been intimately exposed. The result of the test can be known in 24 hours and means for prevention, which seem indicated, may be instituted early. It is also useful in institutions where large numbers of children or adults have been exposed. And lastly it is the only way by which it is possible to be certain that children or others who have been inoculated with toxin for an active immunization, have obtained the desired result.

Concerning the use of toxin for active immunization there is still much to learn. It is certain that the administration of toxin will immunize against the toxemia of scarlet fever. About this there can be no dispute. The chief concern at this juncture involves several technical points. There is first the matter of standardization of the toxin as to dosage. There has not yet been found any laboratory animal which can be used successfully as a test animal, such as the guinea pig is for diphtheria toxin. This accounts for the frequent changes in the recommended dose by those who are working in this field. At the beginning of this work Drs. Dick advised three doses much smaller than now used. Therefore, those who started early to use this material as a routine in their practice must now go over those patients and increase the size of the dose. The dose recommended early is known not to have produced a lasting immunity.

DOSAGE FOR IMMUNIZATION

Dr. Zingher of New York, starting early with a dose of 100 skin test doses for the first inoculation and increasing this to 250 and 500 skin test doses in two subsequent injections at intervals of a week, was able to produce an immunity as demonstrated by a negative Dick test in a large per cent of those inoculated, but he found 13 months later that many of those immunized had lost their immunity. I think, however, that by the Dicks, Park and others, it has been shown that a long time, maybe a life-time, immunity to scarlet fever toxin can be produced by the injection of larger doses than at first recommended by Dicks or Zingher. However, just at present there is a discussion between people prominently connected with the research in this field as to what is the proper size dose. Dr. Park of New York City recommends four doses spaced a week apart. Starting with a dose of 500 skin doses, increasing to 1,000 skin test doses for the second dose, and 2,000 for the third, he completes the immunization with 5,000 skin doses for the fourth injection. Dicks, on the other hand, recommend 500 skin test doses for the first inoculation, 1,500 for the second, 5,000 for the third and 15,000, 20,000 and even to 25,000 skin test doses for the last injection. It is important to start with a small dose. Larger initial doses than 500 skin test doses is likely to produce rather severe symptoms in the patient. These, of course, vary with the individual susceptibility of the patients. The reaction may be severe enough to produce a scarlet rash, temperature of 102 to 103 and vomiting. This is usually avoided by beginning with a small dose. The succeeding doses usually do not produce severe reactions because the previous inoculation has resulted in the production of enough antitoxin to give some protection. The immunity acquired is usually sufficient to prevent a rash by the time the inoculations are complete, but

even so these inoculations are not indicated in those who are known to have been recently exposed. The reasons are obvious; immunity is not produced within the incubation period and if a reaction should occur and be of sufficient severity to cause a rash or vomiting it then causes a difficulty in diagnosis. It is then not possible to say whether the patient has scarlet fever or a severe reaction from the inoculation.

There is still another matter of considerable importance in determining the advisability of the use of active immunization with toxin and that comes through a consideration of the disease itself and the pathogenic qualities of the organisms. Simple scarlet fever is an acute toxemia produced by the toxin elaborated by the specific streptococcus as it grows in the tissue. The rash of scarlet fever is an expression of this toxemia and the most characteristic early diagnostic sign of the disease. Other manifestations during the course of the disease such as septicemia and post-scarlatinal sepsis, mastoiditis, meningitis, non-suppurative and suppurative lymph-adenitis are looked upon as complications. This condition is brought about because the streptococcus hemolyticus scarlatinae has two pathogenic qualities both of which are well established, each of which seems to be independent of the other and each of which is resisted by a different type of immunity. A patient may recover from his true scarlet fever by the production of enough antitoxin to neutralize the toxin. At this point his rash fades and he is cured of his toxemia but may continue with a high fever and develop a mastoiditis or a general sepsis, which is a different manifestation of the same organisms. We may say, then, that this organism has two pathogenic qualities. First, the production of a toxin which produces in the patient a toxemia, which is cured by antitoxin and may be prevented by giving toxin inoculations for active immunity; and second, the property of invading tissue and setting up a septic state which, when once established, is not affected by antitoxin and for that reason may not be prevented by toxin immunization.

A short expression of the significance of these facts with relation to the use of toxin as an immunizing agent is: That it will produce an antitoxin which will protect the treated individual from becoming toxic and therefore from showing a rash, but it may not prevent the same person from contracting a septic sore throat caused by the scarlet fever streptococcus acquired from an exposure to a scarlet fever case. In such a case the only thing accomplished by toxin immunization is the masking of the symptoms of scarlet fever, which will result in many undiagnosed cases of septic sore throat due to the specific streptococcus of scarlet fever.

It is admitted that this is an entirely theoretical discussion of the value of toxin immunization in the prevention of scarlet fever. However, at least, there are few facts which seem to support this view. Drs. Blake and Trask in discussing the treatment of scarlet fever with antitoxin said that it has not been demonstrated that it, antitoxin, has any therapeutic value in post-scarlatinal sepsis after the rash fades, but that it may have some indirect benefits in preventing these complications by curing early the depleting toxemia. In a more recent paper by Stevens and Dochez, a report is made of the occurrence of throat infections with streptococcus scarlatinae without a rash. Their conclusions are:

That scarlatinal infections of the throat may occur without a rash.

That this type of infection may occur in individuals showing negative skin reactions, Dick Tests, to scarlatinal toxin. That the Dick test is not a reliable index of immunity to such throat infections.

A negative Dick test means an immunity to the toxin of streptococcus scarlatinae. The report of the men just quoted entirely substantiates the theoretical objections made in this paper to the use of toxin as a routine immunizing agent against scarlet fever, at our present state of knowledge concerning this agent. It is my opinion that the toxin as a prophylactic agent against scarlet fever is yet in quite an experimental state and therefore is not yet ready for routine use. It is not improbable, however, that with an improved state of knowledge concerning this means of scarlet fever prevention it may be a very desirable plan of procedure. It is quite possible that immunization with the toxin may indirectly offer some resistance to scarlatinal throat infection, but so far such a belief is purely an assumption and not founded on anything which is known concerning the prevention of the disease.

CONCLUSION

The therapeutic value of antitoxin is established

and constitutes the really well-proven advance in the treatment of scarlet fever. It is effective in the cure of the toxemia of scarlet fever and probably indirectly lowers the incidence of complications in these cases. It should be used early in all cases of scarlet fever, but I believe it is only the occasional circumstance which calls for its use for prophylactic purposes. The reasons for this are many and are well recognized by those who work in this field of medicine.

THE JOURNAL CLINIC

Hemoptysis in Cardiac Affections*

BY O. R. McMURRY, M.D.
Madison

The occurrence of hemoptysis is the occasion for differential diagnosis rather than the assumption of primary pulmonary lesion. It is unnecessary in a discussion of the present scope to enter upon the numerous conditions which may give rise to this symptom, but the following cases are cited to stress the fact that a presumptive diagnosis of pulmonary tuberculosis, especially, is not admissable on the ground of hemoptysis alone. It is, of course, admitted that this etiologic background is responsible for a great majority of such cases, but not to the exclusion of other affections such as pneumonia, bronchiectasis, pulmonary syphilis and neoplasm involving the lung directly or circulatory conditions such as are to be considered in the present relation.

With the necessity for the exclusion of a circulatory background in cases showing hemoptysis the following cases are cited:

CASE I

H. F. R., a female, aged 17 years, was admitted to the Wisconsin General Hospital on April 8, 1925, complaining of blood spitting. The history of this occurrence dates back one month, when following a coughing spell there was a hemorrhage of several ounces of bright red blood. This occurrence succeeded an upper respiratory infection apparently and at that time there had been rather easy perspiration. Subsequent to that time, however, there was a gain of ten pounds of weight and the complete subjective relief from respiratory symptoms. On direct questioning dyspnoea and tachycardia were admitted to be of a year's duration. The past medical history developed the occurrence of frequent sore throats but no other factor of possible etiologic relationship.

On physical examination the patient showed the following positive findings bearing on the present condition: Subcyanosis of the lips, cardiac enlargement upward and to the left, double (presystolic and systolic) murmur at the apex, collapsing pulse and capillary pulse. No pathologic signs were determined in the lungs and the x-ray showed no abnormality. A continued period of observation failed to reveal elevation of temperature. The laboratory examinations were without bearing in the present relation.

A diagnosis of mitral stenosis was made and in our judgment this circumstance accounted for the hemorrhage a month prior to admission.

CASE II

C. W., an adult white female, aged 35 years, was admitted to the Wisconsin General Hospital on April 15, 1925, because of weakness. A history of circulatory inadequacy dated back about fifteen years. In the fall of 1924 there was a single frank hemoptysis in addition to the preexistent palpitation, dyspnoea, precordial pain and edema. The possible etiologic background for a cardiac condition had occurred in the form of chorea as a child.

To physical examination the pertinent findings in the present connection were showers of subcrepitant rales in both upper lobes, anteriorly and posteriorly, without corresponding changes to palpation and percussion. There was a long diastolic thrill over the entire cardiac area and a long drawn out presystolic murmur heard over the entire precordium but loudest at the cardiac apex. The heart was enlarged downward and to the left. Electrocardiographic studies showed marked left ventricular preponderance with evidence of auricular hypertrophy in the height of the P waves. X-ray of the heart confirmed the left auricular enlargement and showed diffuse congestive changes throughout both lungs, as well as diaphragmatic pleurisy on the left.

A diagnosis of mitral stenosis with pulmonary congestion was made and the hemoptysis of 1924 explained on this basis.

CASE III

Mrs. F. G., an adult white female, aged 40 years, was treated in the Wisconsin General Hospital on several occasions beginning June 30, 1925, until her exodus January 12, 1926. The history of her circulatory difficulty dates back to an attack of rheumatic fever occurring ten years prior to the first admission. There was no evidence of decompensation, however, until two years

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ago when edema of the legs, dyspnoea, palpitation, headache and dizziness occurred.

The physical examination revealed findings of a frank mitral stenosis with congestion in the left infraclavicular region and at both bases. The electrocardiogram showed right ventricular preponderance with evidence of myocardial change and on several occasions there was definite fibrillation. Sharp pain in the left chest was succeeded by blood spitting. Showers of petechiae occurred with an increase in the circulatory difficulty and evidences of an increased infiltration in the left infraclavicular region led to a diagnosis of pulmonary infarction.

This diagnosis was confirmed by necropsy and the source of infarction proved to be a thrombosis in the auricular appendages or possibly embolism from a subacute bacterial endocarditis. This case then differs from the previous two in the origin of the circulatory difficulty from a thrombotic interference with circulation rather than a pure hydrostatic factor, such as we assume to be the case in pulmonary congestion from interference with the lesser circulation.

CASE IV

Mrs. T. D., aged 34 years, admitted to the Wisconsin General Hospital on April 28, 1925, with complaint of pain in the heart. There is a history of onset seven months previously with dyspnoea, dependent edema, palpitation, cough and marked loss of weight. Rheumatic fever had occurred as a child and there was a history of luetic infection.

To physical examination the following findings pertinent in the present relation were established: Dyspnoea, cyanosis, pulsating jugulars and carotids, rales in both bases, a marked enlargement of the heart downward and to the left, a double murmur at the apex and a long diastolic murmur at the base with peripheral corroborative signs, large tender liver and pretibial edema.

A diagnosis of aortic regurgitation with relative mitral insufficiency, syphilitic aortitis, dilatation and hypertrophy of the heart, chronic passive congestion of the liver and lungs was made. Venous pressure was recorded as high as 22 centimeters of water. The blood Wassermann was ++++.

About a week after admission patient experienced severe pain in the left base with the following physical findings: Decreased tactile fremitus at the left base with marked dullness, definite tenderness, bronchial breath sounds and bronchophony over the area of subjective involvement.

Frank hemoptysis of bright red blood accompanied this symptom and continued for two days. Post mortem examination confirmed the diagnosis of hemorrhagic infarction of the left base, together with the cardiac diagnosis above made. As in the previous case the symptomatology and cardiac findings were quite characteristic.

CASE V

Mrs. M. G., aged 59 years, admitted to the Wisconsin General Hospital May 25, 1925, complaining of shortness of breath. The picture was that of an old cardiac decompensation with marked edema, cyanosis, gastric disturbance, palpitation, dyspnoea and hemoptysis. The misleading point in the history was the occurrence of chills and night sweats; but to physical examination there was developed no evidence of infiltration, simply congestion in the bases of the lungs with extreme hypertrophy and dilatation of the heart, together with evidence of myocardial degeneration and auricular fibrillation. The latter two circumstances were corroborated by electrocardiographic study and in spite of active treatment directed toward the decompensated state of the circulation, the patient steadily declined to termination three weeks after admission. Prior to this time, however, there had developed a definite thrombosis of both femorals with resultant gangrene. The evidence of portal stasis was quite definite in the engorgement of the liver and ascites. The clinical impression of chronic passive congestion of the lung in explanation for the hemoptysis was borne out by the autopsy findings as were also the impressions of the circulatory condition.

This case is important as representing the chronically decompensated cardiac case, in which the right sided weakness is measured by the cyanosis, respiratory distress, elevated venous pressure, cough, pulmonary edema and hemoptysis.

CONCLUSION

Five cases of hemoptysis of circulatory origin are presented. Their features vary in several respects but they are to be kept in mind as type cases. This review is not intended to convey the impression that the occurrence of hemoptysis of circulatory origin in any sense overshadows the hemoptysis of tuberculous origin in frequency or importance. The occurrence of five cases of the type stated, three of which had been previously diagnosed as tuberculous, is however sufficient evidence for the necessity of stressing the possibility of a circulatory background in cases with hemoptysis.

Discussion of Case Reported in May Journal

BY L. M. WARFIELD, M.D.
Milwaukee

The case of Mrs. M. S. reported in the May Journal presented quite a puzzling picture when her history was given to me. It certainly suggested hyperthyroidism. However, the fact that ligation, instead of improving her condition, apparently made it worse, raised some doubt as to the correctness of that diagnosis. The first inkling that it might not be hyperthyroidism was

given by a study of the temperature, pulse, and respiration chart. It was noted that the pulse was often rapid but that there were periods when it was well below 100. The temperature was normal except for a few days of fever due to an intercurrent tonsillitis. Examination of the case was then made with the suspicion aroused that it might not be due to the thyroid gland. As soon as the chest and abdomen were bared for examination one was struck by the peculiar sallow color. Her attitude and general appearance did not suggest thyroid disease. There was no loss of weight. As soon as the hair in the axillae and on the pubis was examined and found to be lacking an inquiry revealed amenorrhea. The diagnosis soon was suggested. On further examination there was lack of all symptoms of hyperthyroidism. The reasoning in the case was as follows: It is known that the cells of the anterior lobe of the pituitary gland hypertrophy during pregnancy. This gives rise to the commonly observed coarsening of the features suggestive of mild acromegaly. When the child is born these cells atrophy and the pituitary assumes its former state. It has been shown by Simonds and others that complete atrophy of the anterior lobe of the pituitary produces a peculiar train of symptoms characterized by weakness, loss of weight, rapid pulse, atrophy of all the organs, cessation of menstruation, loss of hair and frigidity. It seemed that we were dealing here with a mild case of this type in which the anterior pituitary cells had retrogressed beyond the normal state. It was a case of hypopituitarism of the anterior lobe. There was, however, still the increased basal metabolic rate which was difficult to explain. The only explanation in this case was that she was nervous and excited and the readings were not correct.

Acting upon this probable diagnosis she was given substitution therapy with anterior lobe extract and small doses of thyroid gland. She began to improve rapidly. Within three months her menstruation returned, and she has been able to get back to her housework.

This case illustrates one interesting fact and that is that too much dependence should not be placed upon laboratory examinations. After all, the most important methods of diagnosis are still the history and the careful physical examination. From these and a knowledge of pathology, physiology, and anatomy, the diagnosis in most cases can be made.

Report of Three Cases of Aortic Aneurysm*

BY EDWIN E. McKINLEY, M.D.
Madison

Aortic aneurysms are clinically divided into two main groups—aneurysms of signs and aneurysms of symptoms. Aneurysms of symptoms are relatively common but due to the variety of symptoms many of them go unrecognized until after death when necropsy reveals explanation for symptoms present during life. In the thoracic aneurysm, the mere existence of a dilatation at some part of the aorta is not necessarily accompanied by manifestation of disordered function or local distress. Unless the enlargement mechanically interferes with neighboring parts, it may be present for a long time unrecognized. Consequently, the occurrence of symptoms which will indicate the existence of thoracic aneurysm, depends more upon the exact situation of the tumor than upon any other circumstance. The symptoms will present a wonderful variety in accordance with the varying locality and the direction of the expansion of the growth. Deep seated aneurysms may be entirely latent, presenting no evidence of their existence either by symptoms or physical signs. The comparative frequency of such cases is now generally recognized.

The clinical history of patients with aneurysms is often extremely indefinite previous to the development of the characteristic symptoms. It is quite common to find a man seeking advice for aphonia or a harsh cough or a thoracic pain, found to be due to an aneurysm of some duration, yet he will give an account of having enjoyed excellent health in every respect until these symptoms attracted his attention. Again a quick pain with palpitation and breathlessness has been observed at some remote period to be followed later by other symptoms of intrathoracic disorder. Or some laryngeal or bronchial symptoms may have arisen almost imperceptibly over some period past. In

*From the Department of Clinical Medicine, University of Wisconsin.

many cases, belonging to one of the above types of men about middle age whose general health and nutrition remain unimpaired, suspicion of aneurysm may very reasonably be entertained.

The symptoms of thoracic aneurysm are mainly the symptoms of intrathoracic pressure, and differ in no respect from those produced by tumors of other nature in the same situation. The symptoms consist mainly of the manifestations by which we can recognize displacement of lung substance, compression of the main or secondary air tubes, irritation or destruction of nerves, obliteration of venous channels, obstruction of the esophagus, or erosion of some of the bony structures. The principal symptoms of intrathoracic pressure may be enumerated as pain, local or referred, dyspnoea, altered voice, cough, stridor, headache, disordered vision and lastly paraplegia.

The report of the following cases is especially interesting in that it serves to illustrate the variety of symptoms manifested by an intrathoracic aneurysm.

CASE I

I. J. N., an American farmer, aged 87, was admitted November 25, 1925, complaining of hoarseness. He dates the onset of his illness back to September, 1925, at which time he noted marked soreness or rather a raw feeling of vocal cords. No impairment of voice at first, and no other symptoms. Patient felt extremely well otherwise. Gradual progression of hoarseness until almost impossible to use voice at end of six weeks. At present time, patient talks in a loud whisper. There was some shortness of breath, but not marked excepting upon exertion. His past and family histories are essentially unimportant.

Physical examination revealed a fairly well nourished, well preserved individual. There was marked engorgement of the superficial veins throughout with pronounced tortuosity. The pupils were very irregular and the left was larger than the right. The larynx was rotated outward and forward on the right. The chest was markedly emphysematous, making percussion of the heart borders difficult, although there seemed to be moderate enlargement of the right side and slight impairment under upper sternum. There were occasional extrasystoles. Laryngoscopic examination showed marked enlargement of the left arytenoid. The left vocal cord was in the cadaveric position and no movement of the left cord was observed.

Laboratory examinations showed a negative urinalysis and the blood Wassermann was negative. Stereoscopic x-ray of the chest showed some apparent widening of the left ventricle. The ascending arch of the aorta stands out somewhat more prominently than normal and the transverse and descending arches are somewhat dilated. Fluoroscopy of the chest confirmed the impression that there was a definite aneurysmal dilatation of the aortic arch, particularly in the transverse portion.

This case serves to well illustrate one of the manifestations of an intrathoracic aneurysm, namely pressure upon nerves. In this case, the pressure was exerted upon the left recurrent laryngeal with resulting impairment of voice. We have no way of determining how long this aneurysm may have been present, but it is not difficult to believe that it may have been present for a long time unrecognized until its enlargement mechanically interfered with the left recurrent laryngeal nerve.

CASE II

F. B., a Hungarian tailor, 58 years of age, was admitted to the hospital complaining of difficulty in breathing and sudden asthmatic attacks since February, 1921, for which no etiological factor could be determined. The first attack lasted but a short time, patient being entirely free from symptoms on day following onset. No further difficulty until February, 1922, when asthmatic attacks recurred with renewed vigor and patient has never been free from symptoms since that time. Patient gives history of working as a metal polisher in 1917 at which time he developed a cough which has persisted to the present time. Past medical history and family history are essentially negative.

Physical examination revealed a markedly dyspnoeic individual in an orthopnoeic position. There was marked cyanosis of the mucous membranes. Inequality of the pupils, the right being contracted. The chest was emphysematous with many moist and sonorous rales heard during both inspiration and expiration. Expiration was much prolonged. There was marked widening of the aortic arch to percussion. A systolic murmur was heard maximum at the aortic area and transmitted up the vessels of the neck. There was a short diastolic murmur maximum at the aortic area and heard over entire precordium. There was a capillary pulse, positive Duroziez and a blood pressure of 180 systolic and 80 diastolic. The liver was enlarged 5 centimeters below the costal margin in the midclavicular line.

Laboratory findings include a negative blood Wassermann. The spinal fluid was negative throughout. Stereoscopic x-ray of the chest showed marked widening of the arch of the aorta particularly in the ascending portion. The heart was within normal range as to transverse diameter. Fluoroscopy of the chest confirmed the impression that there was a definite aneurysmal dilatation of the aortic arch particularly in the ascending portion.

Despite the negative serology the patient was placed upon mercury and potassium iodide therapy, the latter in increasing doses. This, together with local treatment to nose and throat, brought about a very decided relief from symptoms. Patient was discharged much improved subjectively with advice to continue antiluetic medication.

It is interesting to note that pressure upon the

important nerves supplying the muscles of the larynx which pass through the chest will cause dyspnoea. Here, the striking feature is dyspnoea in paroxysms. There may be periods of comparative calm, during which there is only moderate shortness of breath on exertion, but suddenly with or without any exciting cause severe suffocative dyspnoea sets in, and in some cases actually proves fatal. This feature is well illustrated in this case. The early attacks of dyspnoea were entirely paroxysmal, the first attack merely lasting a few hours. Later as the aneurysmal enlargement increased, attacks became more and more frequent. The dyspnoeic attacks finally becoming so frequent as to simulate ordinary asthma.

CASE III

T. P., an American laborer, aged forty years, was admitted to the hospital on November 21, 1925, complaining of heart trouble. He claims he was in good health until October, 1925, when he became troubled with a "cold" with excessive coryza and a painful non-productive cough. About ten days following the onset of cold, he developed a steady sore, aching feeling in the region of his heart. Shortness of breath occurred about the same time and continued without abatement until the present time. At the time of admission, patient remarks that he is frequently awakened at night feeling a profound inability to get enough air. Feels as if he cannot breathe. Sometimes coughs a little and feels somewhat better. Past history is of importance in that it reveals the occurrence of chronic cough during the winter of 1924, and the occurrence of steady aching pains in the left side of the chest, which have increased in severity to such an extent that patient is unable to recline on the left side at present.

Physical examination revealed irregular pupils and anisocoria. There was marked pulsation of the carotids and right subclavian arteries. A thrill was palpable over the latter. The jugulars were engorged. There was a visible pulsation in the second and third interspaces to the right of the sternum. A diastolic and systolic thrill was palpable over base of heart but maximum in the third interspace to the right of the sternum. The arch of the aorta was markedly widened measuring 73 mm. in the second interspace. The cardiac apex was markedly displaced to the left and downward, being 148 mm. to the left of the midsternal line in the sixth interspace. There was a harsh blowing systolic murmur maximum at the aortic area and transmitted up the vessels of the neck. A diastolic murmur was heard over the entire precordium but maximum at the third right interspace. There was a definite apical systolic murmur fading out into the axilla. There was a Corrigan pulse and a positive Duroziez. Arterial pressure was systolic 160, diastolic 58, on admission. The liver was enlarged ten centimeters below the costal margin in the midclavicular line.

Laboratory examinations revealed a ++++ Wassermann. X-ray of the chest showed a marked widening of arch of the aorta, prominent in its anterior position. Marked widening of heart in transverse diameter, particularly in the left ventricular region. Aneurysm of the aorta was diagnosed. Fluoroscopy confirmed the impression that there was an aneurysm of the arch with saccular dilatation of the descending aorta.

Treatment consisted in the administration of tincture of digitalis ten minims three times daily, potassium iodide ten grains four times daily and mercury salicylate, grains one and one-half, weekly.

On December 10, 1925, patient was awakened by substernal pain, oppressive in type, with subsequent accentuation of dyspnoea. The heart was extremely overactive and the blood pressure was systolic 155, diastolic 70.

On January, 1926, patient became very dyspnoeic and cyanotic and the pulse was very rapid. The lungs were full of rales making it impossible to hear heart sounds. About 30 c.c. of clear, frothy, slightly blood-tinged fluid was coughed up. Patient was in cold sweat.

The pain in the back persisted throughout illness. Patient was unable to distinctly localize it. There was a suggestion of a localized impulse in the 5th and 6th left intercostal spaces in the left interscapular region close to the vertebra. Bruit was audible posteriorly. X-ray taken at this time revealed erosion of the body of the 6th thoracic vertebra on its lateral aspect.

On January 30, 1926, lungs were full of sibilant rales. Sputum was blood tinged. Patient continued on decline, dyspnoea increased and patient expired January 30th.

Necropsy permission was obtained. This revealed heart weighing 623 gms. The coronary arteries showed luetic sclerosis. There was a saccular aneurysm of the arch and descending aorta with erosion of the body of the 6th thoracic vertebra on its lateral aspect.

This case well illustrates the fact that the pain of thoracic aneurysm is a most common symptom, but variable as to its character, degree and situation. An aneurysm pressing backward against the vertebral column and the spinal nerves emerging therefrom, has two special forms of pain connected with them. Either a persistent boring pain experienced in some particular part of the spinal column, or a definite intercostal neuralgia, having a distributive intermittent character, and tender spots often well marked. Early pain is usually of lancinating character; later on in complaint the pain is likely to be of a steady wearing kind and referred to some fixed spot deep in the chest. In this particular case, the pain was of a steady ach- of first observation. Later, the character of the pain changed and was localized in the left intering character with no definite localization at time scapular space close to the vertebral column. The possibility of erosion of the vertebral column was

immediately considered with verification by x-ray studies.

The occurrence of nocturnal dyspnoea in this case presents one of the most characteristic symptoms of intrathoracic aneurysm. It is one of the most classical symptoms and offers a clue to the immediate diagnosis.

CONCLUSION

From a study of the foregoing cases, it is readily seen that each individual case illustrates several of the characteristic symptoms of aortic aneurysm. The first is characterized by aphonia, the second by dyspnoea simulating ordinary asthma, and the third nocturnal dyspnoea and pain. Needless to say, any one or all of these symptoms may be present in any given case. The presence of one does not exclude the others, but rather suggests the necessity of a thorough investigation in order to eliminate the possibility of their presence.

I do not believe that too much emphasis can be placed upon the presence of symptoms in aortic aneurysms. The general practitioner should safeguard his observation and interpretation of symptoms as very often an erroneous diagnosis is made in the early stage of the condition.

Perforation of the Gall Bladder Twice in Same Patient With Complete Recovery*

BY DAVID FISHER, M.D., AND EDMUND H. MENSING, M.D.
Milwaukee

Perforations of the gall bladder and biliary ducts are not very common. In our series of 300 consecutive cholecystectomies in the National Military Hospitals, only 4 perforations were encountered. Two perforations of the same gall bladder in the same individual on two separate occasions, is a rare occurrence, and diligent search of the recent literature fails to disclose the report of any such case. Aside from this unusual feature, this case emphasizes very strongly, the desirability of cholecystectomy as opposed to cholecystotomy in the surgical treatment of gall bladder disease.

CASE REPORT

First admission: Mr. D. L., 53, entered for the relief of acute abdominal pain and vomiting. Twenty-four hours before, he was suddenly seized with a severe colicky pain beginning in the epigastrium and radiating to the right upper quadrant, passing to the right beneath the costal border of the twelfth rib, and reaching the area of the inferior angle of the scapula. From there the pain became localized in the right upper quadrant. This was soon followed by vomiting which persisted intermittently for several hours. The pain gradually became less in intensity. Physical examination showed a very sick looking individual, with deep generalized jaundice. Abdominal examination was negative except for slight tenderness and muscle spasm in the right upper quadrant. The temperature was 99.8, pulse 96, respiration 20, W. B. C. 11,000, Hg. 95%, coagulation time 7 minutes, urine negative except for the presence of bile. The jaundice disappeared in 48 hours and the patient left the hospital refusing to remain for a subsequent operation.

Second admission: Three months later, this same patient was again admitted for the relief of acute abdominal pain and vomiting. Six hours before, immediately following the noonday meal he was suddenly seized with a knife-like pain beginning in the epigastrium and radiating to the right upper quadrant. This was followed by a distinct chill lasting about two minutes, then he vomited. Since then, vomiting has been frequent. The pain gradually subsided, and was now represented by a soreness in the right upper quadrant. Examination was negative except for the abdomen, which was tense, rigid, with generalized tenderness and muscle spasm. Temperature 103.6, pulse 140, respiration 28; pulse quality very poor, and of small volume. Respirations were shallow and rapid; W. B. C. 27,000; pollys 81%; Hg. 85%; coagulation time 5 minutes; urine examination negative. In view of the recent history, a diagnosis of perforation of the gall bladder with peritonitis was made.

Operation by Dr. Fisher under gas-oxygen anesthesia. On opening the peritoneum, a large amount of pus gushed forth containing great numbers of gall stones. The pus was scattered freely throughout the entire abdomen. The gall bladder was tremendously dilated and still contained a large amount of pus and bile. There was a perforation the size of a five cent piece on the fundus, a small perforation in the cystic duct, and a third perforation at the junction of the cystic and common ducts. The posterior surface of the gall bladder at its attachment to the liver notch was gangrenous. Due to the extreme condition of the patient, no attempt was made to remove the gall bladder, but drains were placed in the fundus, cystic and common ducts, in the perinephritic region of the right side, and in the right lower quadrant through a stab wound.

*From the Surgical Section of the National Military Hospital, Milwaukee, Wisconsin.

The patient was returned to bed in intense shock, but reacted rapidly and favorably to the insulin-glucose treatment. After a stormy convalescence, he made a complete recovery. Thirty days following recovery, the patient refused a secondary operation for removal of the gall bladder and was discharged from the hospital.

Third admission: Readmitted four months following second discharge for relief of acute abdominal pain and incessant vomiting. Twenty hours before admission, he had a chill lasting about five minutes, and simultaneous with this, was seized with a severe cramplike pain in the epigastrium and the pain remained there. Vomiting soon began and has been continuous. Physical examination was essentially negative except for the abdomen which was rigid with generalized tenderness and muscle spasm, more so in the epigastrium. Temperature 102.6; pulse 120; respiration 22; W. B. C. 17,800; pollys 84%; Hg. 90%; coagulation time 4 minutes. Urine was negative.

Operation by Dr. Mensing under gas-oxygen anesthesia. Upon opening the peritoneum, a large amount of greenish fluid escaped but no pus was to be seen. The gall bladder was much reduced in size, and on its anterior surface at the junction of the fundus and the neck, was a perforation, an actually punched-out hole, about 1 cm. in diameter. The gall bladder, which contained several stones was removed with difficulty, and proper drainage instituted including that of the common duct. The patient developed a severe peritonitis and remained irrational and delirious for thirteen days, following which he made a complete recovery.

This case perhaps illustrates clearly, the folly of draining a gall bladder when surgical treatment is given, and the condition of the patient warrants removal. Where indications for cholecystotomy exist, the same indications exist for cholecystectomy. Certainly, the temporary drainage of infected material from a gall bladder in no way changes the pathology of the walls of the organ, and subsequent reinfection is bound to occur. It is within the experience of every surgeon constantly to see cases that have had gall bladder drainage returning with an exacerbation of the original symptoms, and removal of the gall bladder at this stage is a much more difficult feat for the surgeon and much more trying for the patient than would have been the case at the original operation. Removal of the gall bladder means entire eradication of the trouble when it can be traced to this organ, surgical drainage is merely a temporizing measure.

Repair of Bone Fracture*

BY F. D. GEIST, M.D.
Department of Anatomy, University of Wisconsin

A careful review of the literature extending as far back as 1731 showed that no complete serial study of the successful steps in the healing of experimental bone fracture has been made. Under aseptic conditions, a cut was made in the shaft of the tibia of rabbits in a direction parallel to the long axis of the bone by means of a circular saw. Animals so treated were killed at different intervals up to 21 days and careful histological studies made of the region of the cut. With this cut made in this position, splints were unnecessary and the animals could use their legs in the ordinary way. It was found that there was a stimulation of the cambium cells of the periosteum with deposition of new bone. Due to the fact that these cells had been destroyed by the movement of the saw in the vicinity of the cut, this process began some distance from the cut but developed toward the region of the cut and finally grew into it. An external callus was thus formed which afterwards became gradually absorbed. An internal callus also was formed which grew toward and into the cut. In the cut proper the blood clot was first absorbed and later replaced by fibrous tissue and eventually by the growing bone from the external and internal callus. At the end of the first week, the cut was filled in with new bone. Osteoclasts now appeared in this new bone which ate out the old bone along the walls of the cut in a remarkable manner. These osteoclasts invaded the walls of the cut through narrow openings which developed into larger cavities so that the osteoblasts which followed in the wake of this process would deposit new bone among the old bone in a manner permitting of the firmest possible dovetail union. A new Haversian system becomes established about the 17th to 19th day at which time the external and internal calluses become absorbed.

This paper by Dr. Geist was discussed by Dr. Meek, Dr. Burns, and Dr. Bast.

*Abstract of paper presented before the regular meeting of the University of Wisconsin Medical Society, November 11, 1925.

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FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

VALUE OF ORGANIZED EFFORT

THE Literary Digest recently published the views of a British physician concerning public health to the effect that organized health work had been of little or no influence in determining the downward trend of certain important diseases, notably tuberculosis. This recalls the historic controversy between Pearl and Dublin as to the effectiveness of organized attacks upon our disease and death rates. Pearl holding that we have accomplished little which would not have been accomplished otherwise and Dublin citing the experience of a large insurance company to show that public health work has paid dividends.

The published statements of sceptics are a challenge to the medical profession to whom the public health movement looks and must continue to look for leadership. Probably it is a good thing for us to pause and consider so that we may refute the statements of pessimistic observers or possibly abandon some of the methods with which we now seek to combat disease and death.

It is certain that there are some fallacies in the arguments of those who belittle the importance of public health work. Pearl, for example, in comparing the decline of four diseases against which active work is directed with what he calls the equal decline of four diseases against which there has been no concentrated effort chooses for his latter group terms which have been gradually eliminated from vital statistics because they are vague, indefinite and have reference to symptom pictures rather than actual causes of death. The elimination of such terms from our records and causing them to be replaced with better ones does not mean the elimination of the disease causes in question.

There are others who say that improved economic standards and better living conditions account for the improvement in the public health and the decline of our death rates. Perhaps this is so, but who shall say that organized public health, especially in its educational phases, has not been a vital contribution to the establishment of better standards of living and the demand for better economic conditions? And who shall say that without the educational influences which point toward more hygienic and more rational living the people at large would have made the best use of their improved economic resources?

It is a fact, as shown by Drolet and others, that the tuberculosis death rate in cities is declining faster than in rural regions. It is also a fact that more concentrated efforts have been directed in cities toward the elimination of tuberculosis than have been applied in rural districts though now various organizations are engaged in extensive rural anti-tuberculosis work.

No unbiased observer would claim for public health the whole credit for improved conditions of health and lowered death rates. On the other hand, it is fairly certain that improved earning power alone without education as to the definite methods of combating disease and lengthening life could never have resulted in the great progress which the last half century has witnessed in matters pertaining to the public health.—W. W. B.

SURGERY CHALLENGES TUBERCULOSIS

WE wish especially to commend to our readers the three papers by the medical staff of Muirdale Sanatorium which appear in this issue. In a foreword in the recently published monograph "Surgery of Pulmonary Tuberculosis," by John Alexander, Dean Hugh Cabot of the University of Michigan Medical School says, "No country in the world has attacked the general problem of tuberculosis of the lung more vigorously and I believe more intelligently than America. The attack has been made both through professional endeavor and popular education and very important improvement has been obtained.

"The surgery of tuberculosis in fields other than that of the lung has been extensively developed and is, I believe, at least abreast of the results obtained anywhere. Under these conditions it is rather extraordinary that we should have been so notoriously backward in doing pioneer work in the surgery of pulmonary tuberculosis. It appears that even at this stage of its development over sixty per cent of the patients upon whom radical surgery has been attempted for the amelioration of pulmonary tuberculosis are importantly better off. Unless this field is very different from other fields of surgical endeavor, we may expect still better results to follow."

In another foreword in the same book Dr. E. R. Baldwin of Saranac Lake says, "It will be a surprise to the majority of American physicians who read this book to realize the steady advance in

thoracic surgery and the definite hope offered to the hopeless."

Many of those who attended the meeting of the Academy at which the above mentioned papers were presented realized for the first time that pulmonary tuberculosis is today being treated successfully by surgical methods. While the surgery of pulmonary tuberculosis is still largely in the experimental stage, the general and medical Wisconsin public may well be proud of the progressive spirit and the desire to help the sick so manifest on the part of those in charge at Muirdale Sanatorium.

LAW ENFORCEMENT

THREE years ago the Committee on Public Policy and Legislation of the State Medical Society of Wisconsin made a concise and most valuable statement outlining the extent of proper activity for the Society in the enactment and enforcement of laws pertaining to public health. That statement[1], adopted by the Society in two annual meetings, declared that the organized medical profession as such was not directly responsible for either the enactment or enforcement of laws pertaining to public health. It said, however, that the Society by its very nature was obligated to furnish those officers, charged with the duty of law enactment and enforcement, all available information to the end that they might be in the best possible position efficiently to discharge the public responsibility they had voluntarily assumed.

That policy has been carefully and conscientiously followed in the field of law enactment to the immeasurable benefit of the public as a whole.

We are now faced with the problem of better law enforcement.

While quackery may always be with us, there have been certain violations that appeared to be flagrant. Because it has been difficult to obtain prompt action on the part of those charged with the duty of suppressing such violations, it has been intimated that the State Medical Society of Wisconsin should of itself take the necessary action.

Is this not the time when definite notice should be served that the organized profession of this state will not allow or permit its devotion to public health to be so used as to endanger its tremendous influence for good in the years to come. Action in the field of illegal practice brought by others than properly constituted authorities can very easily be called persecution based upon professional jealousy; though there may be not the slightest ground for such charge. The history of the past indicates the danger and futility of any such course in the future.

Laws governing practice are solely for the protection of the public health and in that field they are a basic necessity for the success of preventive medicine. The enforcement of practice acts must come from such public officers as are by law directed to accomplish such enforcement.

Violations of our vital public health laws are allowed to exist either because they are not known to those charged with the duty of law enforcement, because of delay in the courts, or because those charged with such duty manifest a reluctance to comply with their oath of office.

Just as an attorney would be quick to note a violation of the laws establishing rules of practice before the bar, so are physicians in position to note, probably more readily than others, what appear to be violations of basic public health laws—particularly the law governing practice. The organized profession has the responsibility of calling such apparent violations to the attention of the proper officials. Such a course has been followed in the past and there is no indication that the profession will shirk this responsibility in the future.

Where it is found, however, that public officials publicly express by word or action a reluctance to perform the obligations of their office, the recourse of the profession is not an effort to usurp, *even by invitation*, such powers. Its recourse is the recourse of any citizen in any walk of life—the right to appeal for action, and lacking answer, the right to present nonfeasance as found to the public at large.

We venture the prediction that such will be the course of the members and officers of the State Medical Society of Wisconsin.

1. "At the last annual meeting of this House your Commitee on Public Policy and Legislation submitted a recommendation for the institution of a program of lay educational work. Your commitee than expressed its conviction that the organized profession of the state was not responsible for either the enactment or enforcement of public health measures. We expressed the opinion, however, that it was the duty of the organized profession of the state to point out to public and state officials and laymen at large the necessity for public health laws and their enforcement with the advantages to the general public welfare that accrue. We now reiterate that statement as the basis for this report." House of Delegates, 1924, Wisconsin Medical Journal, December, 1924.

THE PRESIDENT'S PAGE

Joseph F. Smith

THE PRESIDENT'S PAGE

Last month it was pointed out that the county medical society is the unit of organization of the various state medical societies and of the American Medical Association of which the state and county societies are components, that the county medical society is the only door to the state and national bodies and that each county medical society is the sole judge of the qualifications of its members and, therefore, indirectly of the members of the larger bodies.

The county medical society should perform two important functions: first, it should promote the science of medicine by providing programs for the discussion of the advances that are made from time to time in the diagnosis and treatment of disease. This work can be carried on by occasionally bringing in a clinician or teacher from outside, by inviting the physicians of neighboring cities and counties to participate in the discussion of subjects of mutual interest and by a discussion of papers and case reports presented by its own members. There is no physician in active practice who does not every week see some case or come into contact with some medical or surgical problem which would interest his fellow practitioners. A full and frank discussion of such cases and problems would be a stimulus and help to the individual members. It should not always be necessary to seek outside help in making up programs for county medical societies. The most generally useful meetings should be those in which the subject matter is presented and discussed by the members themselves. Such presentations and discussions should serve as a stimulus to further reading and more exact and careful study of cases coming to the physician for diagnosis and treatment. Secondly, it should serve to promote a more compact and sound medical organization. Organized medicine, as such, has for its problem the instruction and guidance of the public in medical matters. It must be evident that no medical organization can, as a matter of policy, deal with the needs of individuals as such, but must lay down on broad lines, principles and policies, which in their accomplishment will be of benefit to the whole medical profession and to the public at large.

It follows then that a large organization, such as the State Medical Society with more than two thousand members, can do more along these broader lines than a small group, such as a county society. In a still broader sense can the American Medical Association with almost a hundred thousand members wield a still broader influence.

Each member of the organization, instead of asking "What has the State Medical Society done for **ME**?", or "What has the American Medical Association done for **ME**?", should ask himself "What have **I** done to broaden the power and influence of the state and national organizations and to thereby promote a closer sympathy and understanding between the medical profession and the public which rightfully looks to us for leadership and guidance in matters of public and private health?"

A carefully and thoughtfully considered answer to this last question should determine the attitude each individual physician should take toward the policies of organized medicine.

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Green Lake-Waushara-Adams	B. E. Scott, Berlin	A. J. Wiesender, Berlin.
Iowa	D. B. Hamilton, Ridgeway	M. W. Trentzsch, Highland.
Jefferson	W. C. Becker, Watertown	A. C. Nickels, Watertown.
Juneau	C. A. Vogel, Elroy	A. T. Gregory, Mauston.
Kenosha	W. C. Stewart, Kenosha	H. A. Binnie, Kenosha.
La Crosse	Sigurd Gunderson, La Crosse	N. P. Anderson, La Crosse.
La Fayette	H. B. Moe, Blanchardville	W. W. Peck, Darlington.
Langlade	E. G. Bloor, Antigo	J. C. Wright, Antigo.
Lincoln	E. K. Morris, Merrill	W. H. Bayer, Merrill.
Manitowoc	C. L. R. MacCollum, Manitowoc	L. J. Moriarty, Two Rivers.
Marathon	E. M. Macauly, Wausau	J. M. Freeman, Wausau.
Marinette-Florence	T. J. Redelings, Marinette	M. D. Bird, Marinette.
Milwaukee	S. J. Seeger, Milwaukee	E. L. Tharinger, Milwaukee.
Monroe	H. B. Johnson, Tomah	H. H. Williams, Sparta.
Oconto	C. W. Stoelting, Oconto	R. S. Elliott, Gillett.
Oneida-Forest-Vilas	C. D. Packard, Rhinelander	I. E. Schiek, Rhinelander
Outagamie	C. Reineck, Appleton	E. L. Bolton, Appleton.
Pierce	G. M. Dill, Prescott	Rolla Cairns, River Falls.
Portage	G. H. Lawrence, Stevens Point	F. R. Krembs, Stevens Point.
Price-Taylor	L. S. Dietrich, Medford	E. B. Elvis, Medford.
Racine	H. B. Keland, Racine	Susan Jones, Racine.
Richland	H. C. McCarthy, Richland Center	G. Benson, Richland Center.
Rock	E. B. Brown, Beloit	G. K. Woolf, Janesville.
Rusk	L. M. Lundmark, Ladysmith	H. C. Johnson, Bruce.
Sauk	H. J. Irwin, Baraboo	Roger Cahoon, Baraboo.
Shawano	A. J. Gates, Tigerton	C. E. Stubenvoll, Shawano.
Sheboygan	A. J. Knauf, Sheboygan	Howard Curl, Sheboygan.
St. Croix	F. S. Wade, New Richmond	O. H. Epley, New Richmond.
Trempealeau-Jackson-Buffalo	H. A. Jegl, Galesville	R. L. MacCornack, Whitehall.
Vernon	H. J. Suttle, Viroqua	Wm. H. Remer, Chaseburg.
Walworth	A. M. Leland, Whitewater	Carroll Rice, Lake Geneva.
Washington-Ozaukee	C. A. Balkwill, Grafton	A. H. Heldner, West Bend.
Waukesha	Thomas Miller, Oconomowoc	S. B. Ackley, Oconomowoc.
Waupaca	T. E. Loope, Iola	A. M. Christofferson, Waupaca
Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis.	Madison, Sept. 17-18
Medical Examiners	R. E. Flynn, La Crosse	Milwaukee, June 29

COUNCILOR DISTRICT MEETINGS, 1926

First (Dodge, Jefferson, Waukesha)	Oconomowoc, June 17
Second, (Kenosha, Racine, Walworth)	Racine
Third (Dane, Columbia, Green, Rock, Sauk)	Madison, June 30.
Fourth (Crawford, Grant, Iowa, LaFayette, Richland)	Lancaster, September
Fifth (Calumet, Manitowoc, Sheboygan, Washington-Ozaukee)	Elkhart Lake, July 1-2
Sixth (Brown-Kewaunee, Door, Outagamie, Fond du Lac, Winnebago)	
Seventh (Juneau, La Crosse, Monroe, Vernon, Trempealeau-Jackson-Buffalo)	La Crosse, 1927
Eighth (Marinette-Florence, Oconto, Shawano)	Kelley Lake, June
Ninth (Clark, Green Lake-Waushara-Adams, Lincoln, Marathon, Portage, Waupaca, Wood)	July
Tenth (Eau Claire and Associated, Chippewa, Pierce, Rusk, St. Croix, Barron-Polk-Washburn-Sawyer-Burnett)	Eau Claire, Fall
Eleventh (Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas, Price-Taylor)	
Twelfth (Milwaukee)	Fall

BROWN-KEWAUNEE

Dr. Robert E. Minahan, Green Bay, discussed bovine tuberculosis and testing before the meeting of the Brown-Kewaunee County Medical Society at Hickory Grove Sanitarium on May 20th. The society dined at the institution and held a short session after the dinner. Other speakers called upon for informal talks by President F. J. Gosin were Dr. C. D. Boyd, of the Riverside Sanitarium in Outagamie County, and Dr. D. H. Gregory, of Hickory Grove Sanatorium. The physicians were entertained by the St. Norbert's College orchestra.

—*F. M. H.*

DANE

Members of the Dane County Medical Society met at the Association of Commerce on Thursday evening, April 29th, for the purpose of discussing preliminary plans for the 80th Annual Meeting of the State Medical Society to be held in Madison in September. Mr. J. G. Crownhart, Secretary of the State Society, outlined the general program after which Dr. H. P. Greeley, chairman of the Program Committee, and Dr. W. D. Stovall, chairman of the Arrangements Committee, reported on the work accomplished. A general discussion followed for the purpose of securing the opinion of the members on desirable forms of entertainment.

The society voted to hold a district meeting in Madison during June and appointed as its representative on the Program Committee Dr. Louis Fauerbach, President. Dr. H. P. Greeley and Dr. H. H. Reese gave summary reports of important papers in the scientific sessions at the Dallas meeting of the American Medical Association. Upon request the society authorized the appointment of an advisory committee to assist the Madison Attic Angels in determining matters of policy.

The members of the society met again on May 18th at the Monona Hotel. Following the six o'clock dinner Dr. Erwin Schmidt, Professor of Surgery at the University, presented a paper on "Surgical Treatment of Chronic Adhesive Pericarditis." Dr. Charles B. Younger, Northwestern University, spoke on a subject relating to "Sinus Infections."—*R. B. M.*

DODGE

The Dodge County Medical Society met at Beaver Dam Thursday evening, April 29th. The meeting was called to order at six-thirty in the dining room of the Hotel Beaver with Dr. A. Hoyer presiding as toastmaster. Following the banquet the assembled physicians listened to an address by the speaker of the evening, Dr. Louis M. Warfield of Milwaukee, on the subject of "Diseases of the Heart." Seven heart cases of various

descriptions were presented at the clinic. The meeting was well attended and was pronounced one of the most successful meetings in the history of the Dodge County Medical Society.—*A. A. H.*

DOUGLAS

The monthly meeting of the Douglas County Medical Society was held at Hotel Androy, Superior, on Wednesday evening, May 5th. Two lectures on sleeping sickness were given by Dr. C. Eugene Riggs of St. Paul, and Dr. W. H. Henzler, an associate of Dr. Riggs. —*E. E. C.*

JEFFERSON

The regular meeting of the Jefferson County Medical Society was held at Johnson Creek on April 29th. Following a delicious dinner, the meeting was addressed by Dr. L. L. Allen, senior resident physician at Muirdale, on "Early Diagnosis of Pulmonary Tuberculosis." Dr. K. E. Kassowitz, clinical director of the Sanatorium, gave an illustrated talk on "The Differential Diagnosis of Occult Tuberculosis in Children," and Dr. W. M. Kearns, Urology Department of Marquette Medical School, spoke and showed lantern slides on "Tuberculosis of the Urinary Tract."—*A. C. N.*

On Thursday, May 27th, the members met in joint session with the members of the Jefferson County Dental Society at the Elks Club rooms in Watertown. Dr. Otto F. Dierker, Watertown, presented a paper on "Headaches," and Dr. P. D. Squier, Milwaukee, spoke on "Focal Infection."—*A. C. N.*

KENOSHA

The physicians and dentists of Racine, Walworth and Kenosha Counties attended a May party at the Elks' Club in Kenosha on May 21st. An orchestra furnished music during the banquet and rollicking songs were interspersed with the courses. The dinner was followed by a novel and unusual entertainment consisting of clever dance numbers and acrobatic stunts, solos and humorous sketches in song. A black-face artist and a clever magician added to the successful entertainment. The talent in all the acts was very excellent and the success of the party was attested to by the requests for more social meetings.—*H. A. B.*

MILWAUKEE

Dr. Franklin H. Martin, director general of the American College of Surgeons, addressed the Milwaukee County Medical Society at Hotel Pfister on Friday evening, May 14th. His subject was "The Changing Responsibility in Medicine and Surgery." Following the meeting a buffet lunch was served for the members and their guests. This was the last meeting of the season and the next regular session will not be held until October.—*E. L. T.*

SAUK

The Sauk County Medical Society held a successful meeting at the Warren Hotel, Baraboo, on May 19th. After a beefsteak dinner the following program was given: "The Acute Abdomen in Babies and Young Children, The Medical Aspect," by Dr. Ganz, Professor of Pediatrics, University of Wisconsin Medical School; "The Acute Abdomen in Babies and Young Children, The Surgical Aspect," by Dr. Erwin Schmidt, Professor of Surgery, University of Wisconsin Medical School; "Treatment of Diseases of the Skin," by Dr. R. L. McIntosh, University of Wisconsin Medical School; and "Hospital Contacts," by Dr. R. C. Buerki, Superintendent, Wisconsin General Hospital. Mr. J. G. Crownhart, Secretary of the State Society, was a guest at the meeting.—*R. C.*

WALWORTH

The members of the Walworth County Medical Society enjoyed a very interesting and instructive meeting on May 11th at Elkhorn. Dr. A. Alguire of Belvidere, Ill., gave a talk on "Fractures of the Upper Extremity" accompanied by lantern slides and radiograms.—*C. W. R.*

WINNEBAGO

The second "Feature" meeting of the Winnebago County Medical Society was held on Friday evening, May 21st, at the Mercy Hospital, Oshkosh. Dr. Frank Brockway, Oshkosh, presented the subject of "Proper Methods of Examining the Chest," which was followed by a clinic.—*R. H. B.*

SEVENTH COUNCILOR DISTRICT

Seventy members of the Seventh Councilor District met at Sparta on Thursday, May 20th, for the second annual district meeting. The meeting opened in the afternoon with fifty members attending orthopedic and heart clinics at the State School. Dr. F. J. Gaenslen, Milwaukee, presented several cases in the field of orthopedics and Dr. Louis M. Warfield, medical director of the Milwaukee County Dispensary, presented cases illustrating various heart types. Each case was presented from the point of view of diagnosis and subsequently, of treatment. Three hours were devoted to the presentation of these clinical cases.

At 6:30 the members and guests had dinner at Hotel Sidney. Col. John J. Hannan, President of the State Board of Control, addressed the members on the medical problems of the State Board of Control, outlining its policies and presenting in a comprehensive way the work of the board which necessitated the active cooperation of the physicians of the state. Dr. Joseph F. Smith, Wausau, President of the State Medical Society, addressed the members on the subject of periodic examinations of the apparently healthy persons. Following the two addresses Councilor Evans called upon Mr. J. G. Crownhart, Secretary of the State Society, Dr. Louis M. Warfield and Dr. F. J. Gaenslen for short talks. A unique feature of the meeting was the fact that at the dinner the secretary of each of the component county societies introduced by name the attending members from his county. The dinner and program was arranged by the members of the Monroe County Society who were the hosts for the meeting.

Before presenting the speakers of the evening, Dr. Edward Evans, Councilor, called upon Drs. W. T.

Sarles of Sparta and J. F. Brown of Waupun to rise. Dr. Evans told of the splendid service each had rendered to the public and the profession; Dr. Sarles as a former Trustee of the American Medical Association and Dr. Brown as the retiring physician of the state hospital at Waupun. Each presentation met with an enthusiastic response from the membership.

Officers for the ensuing year are: President, Dr. H. E. Wolf, La Crosse; Vice-President, Dr. A. R. Bell, Tomah; Secretary, Dr. D. S. Smith, La Crosse. It was voted to hold the 1927 meeting at La Crosse. Members were enthusiastic over the unqualified success of this meeting and extended their appreciation to the physicians of Sparta and Monroe County by a rising vote of thanks.

The following physicians and guests attended the meeting: C. A. Vogel, Elroy; R. S. MacKechnie, Hillsboro; C. C. Vogel, Elroy; C. A. Yates, Kendall; F. J. Gaenslen, Milwaukee; Mr. John J. Hannan, Milwaukee; Edward Evans, La Crosse; L. M. Warfield, Milwaukee; Joseph F. Smith, Wausau; J. F. Brown, Waupun; W. T. Sarles, Sparta; Mrs. Dorothy P. Lehman, Sparta; Elizabeth Comstock, Arcadia; Florence H. Knowlton, Sparta; Clara Israeli, Arcadia; A. T. Gregory, Mauston; W. E. Bannen, La Crosse; W. T. O'Brien, Mauston; J. G. Seidel, Warrens; L. G. Scheurich, Tomah; James A. Evans, La Crosse; Geo. W. Lueck, La Crosse; Robert E. Flynn, La Crosse; Edward T. Evans, La Crosse; Jas. E. Heraty, La Crosse; Walter J. Jones, La Crosse; R. H. Herbert, La Crosse; A. E. Winter, Tomah; G. C. Devine, Ontario; L. R. Abbott, Wilton; V. W. Stiles, Sparta; R. A. Mullen, La Crosse; G. F. Stack, Independence; J. Paul Reinhardt, Fountain City; H. C. Koch, Whitehall; H. B. Johnson, Tomah; T. J. Sheehy, Tomah; F. A. Douglas, La Crosse; George Christiansen, Galesville; H. A. Jegi, Galesville; L. E. Hanson, Holmen; Eilef Smedal, La Crosse; E. A. Smedal, Viroqua; Gilbert Storkel, Tomah; John Bell, Tomah; A. R. Bell, Tomah; H. E. Wolf, La Crosse; Jens Rosholt, La Crosse; J. A. L. Bradfield, La Crosse; H. C. Meyer, Necedah; L. J. Walker, Merrillan; Chas. H. Golden, Wonewoc; C. A. Gehring, La Crosse; R. D. Jamieson, La Crosse; W. A. Henke, La Crosse; W. H. Remer, Chaseburg; A. T. Rasmussen, La Crosse; Mr. C. D. Lehman, Supt. State School, Sparta; S. D. Beebe, Sparta; J. M. Scantleton, Sparta; C. D. Beebe, Sparta; E. G. Higgins, Melrose; J. W. Lowe, Taylor; Signrd Gundersen, La Crosse; J. S. Allen, Norwalk; M. Sivertson, La Crosse; D. F. MacArthur, La Crosse; R. H. Gray, La Crosse, and Mr. J. G. Crownhart, Milwaukee.

NINTH COUNCILOR DISTRICT

Over seventy-five members of the Ninth Councilor District Medical Society met at Stevens Point for an afternoon and evening meeting on May 13th. A medical clinic by Dr. Arthur J. Patek, Milwaukee, was given at the Public Library beginning at 4:00 p. m. Dinner was served at Hotel Whiting with over twenty-five members of the District Nurses' Association present as guests of the physicians. Following the dinner the report of the Committee on Nominations was unanimously accepted. Dr. Don Waters, Wisconsin Rapids, was elected president, and Dr. Joseph F. Smith, Wausau, was re-elected secretary.

President Milbee then called upon Dr. Rock Sleyster, Wauwatosa, trustee of the American Medical Association, and Mr. J. G. Crownhart, secretary of the State Society, for informal remarks.

The evening was given over to a symposium on Periodic Health Examinations with the following program: "The Necessity for Periodic Health Examinations," Dr. Joseph F. Smith, Wausau; "The Manual for the Conduct of Periodic Health Examinations," Dr. H. H. Christofferson, Colby; "Public Health Examinations as Applied to the Important Systems, Exclusive of the Cardiac-renal-vascular System," Dr. Karl Doege, Marshfield; "Periodic Health Examinations as Applied to the Cardiac-renal-vascular System," Dr. Arthur J. Patek, Milwaukee. A general discussion followed the program.

FOX RIVER VALLEY

One hundred members of the Fox River Valley Medical Society and the Green Bay Academy of Medicine attended the joint meeting at Hotel Northland, Green Bay, on Wednesday, May 12th. After discussion as to whether it would be advisable to make the society the official district society in the state organization, a motion to that effect was laid on the table.

Dr. Chester M. Echols, Milwaukee, spoke on "Tubal Gestation in the Third Trimester," illustrated by lantern slides. The speaker of the evening, Dr. Ralph Hamill, Chicago, delivered an interesting address on "Mental Diseases."

Officers elected for the new year are: Dr. Ralph M. Carter, Green Bay, president; Dr. W. M. Wochos, Kewaunee, first vice president; Dr. J. W. Boren, Marinette, second vice president; Dr. A. J. McCarey, Green Bay, secretary-treasurer; Dr. S. E. Gavin, Fond du Lac, censor.

MILWAUKEE ACADEMY

The members of the Milwaukee Academy of Medicine met on May 11th. Dr. John L. Yates presented a paper on "Operations as a Means to Reduce Disabilities from Pulmonary Tuberculosis," and Dr. Edwin Bach spoke on "Esophagotracheal Fistula of Malignant Origin."

The May 25th meeting was a joint one with the Milwaukee County Dental Society at which Dr. Wallace Seccombe, Dean of the Dental Department, University of Toronto, was the speaker of the evening, taking up the problem of Dental Prophylaxis. Preceding the lecture a dinner was given in his honor at the University Club. Several gifts have been received during the last month for the new rooms, including books, a library table, and a Swiss eight-day clock for the speaker's desk. The Academy is very appreciative of these gifts. They are especially in need of books on general science antecedent to medicine.—*D. E. W. W.*

NEWS ITEMS AND PERSONALS

The University of Wisconsin news bulletin, in announcing the recent resignation of Dean Louis E. Reber of the University Extension Division, pays tribute to his nearly twenty-five years of active service at the head of this division as representing one of the significant chapters of educational history in the United States. Dean Reber came to Wisconsin in 1907 from Pennsylvania State College, where he was dean of the School of Engineering. That same year the legislature accepted extension as a feature of the state educational program.

Dean Reber will be succeeded by Mr. Chester D. Snell, formerly of the University of North Carolina.

Dr. E. L. Miloslavich, Professor of Pathology at the Marquette University, addressed the 68th Annual Meeting of the Indiana State Dental Association on the subject of "Odontogenic Systemic Infection."

National Hospital day, May 12th, was marked in Park Falls by a public reception at the Park Falls Hospital from 2:00 to 5:00 p. m. The observance of this day, set apart to direct the American public to the wonderful work of these institutions, was sponsored by the American Hospital Association. That the undertaking met with success in Park Falls was evidenced by the number of people visiting the hospital during the receiving hours.

Dr. W. W. Bauer, head of the Racine Board of Health, has been invited to preside over the morning session of the summer conference to be held at Muirdale Sanatorium, Wauwatosa, by the Wisconsin Anti-Tuberculosis Association on June 12th. A one-day conference to which all the health workers in the state are invited will be held at that time.

United States Senator Irvine L. Lenroot, Congressmen John C. Schafer and Victor L. Berger and Mayor Daniel W. Hoan, Milwaukee, are among the public officials who have endorsed the application for parole of Dr. Frederick N. Sauer, Milwaukee, now serving an eighteen months' sentence at Leavenworth penitentiary. Dr. Sauer, owner of the Roosevelt Hospital, was convicted of violating the Volstead Act last fall. He was sentenced to serve eighteen months and pay a fine of $2,000.

Dr. W. A. Deerhake, former assistant superintendent of the Soldiers' Home Hospital, National Home, was appointed acting superintendent of the Central State Hospital for the Insane at Waupun by the State Board of Control. He succeeds Dr. J. F. Brown, who resigned on April 1st because of ill health.

Dr. John Doctor, Racine, addressed the Optimist Club of that city at a weekly meeting held at the Elks' Club. The doctor's address was part of the city wide program for observance of child health week. He stressed the need for the proper feeding of infants and explained the ideals and purposes of child health week.

Twenty-three physicians of Fond du Lac donated their time and services recently and made a thorough physical examination of more than 600 children in the first grades of the public schools. Those children who were found in perfect health were given blue ribbons.

Dr. A. C. Dana, city health officer, directed the examinations in the schools in cooperation with the school nurse. Those who made the examinations were: Drs. C. W. Leonard, F. P. Marshall, A. C. Dana, J. W. Helz, P. G. McCabe, G. T. McDougal, J. R. Longley, J. Waldschmidt, H. R. Sharpe, A. J. Pullen, L. J. Simon, J. J. Rehorst, G. T. Boyd, G. B. McKnight, J. J. Sharpe, H. H. Devine, D. V. Meiklejohn, H. C. Werner, D. N. Walters, O. M. Layton, K. K. Borsack, J. Elmer Twohig and P. J. Calvy.

An award of $25,000 was announced at Washington, D. C., by the Mixed Claims Commission, representing the United States and Germany, to be made to Mrs. B. A. Woods, widow of Dr. Edmund F. Woods, prominent Janesville physician and surgeon. He lost his life in the sinking of the Arabic by a German submarine off the coast of Ireland August 19, 1915. Announcement of the award brings to an end an international litigation carried on for nearly eleven years.

Dr. Eugene Neff of the Davis, Neff, and Bower Clinic, Madison, who has spent four months abroad, has returned to that city. He visited the larger clinics of Europe, spending the major portion of his time in study with leading surgeons in Vienna.

The physicians and surgeons of Beloit at one of their bi-weekly luncheons at the Y. M. C. A., heard a eulogy on Dr. W. G. Melaas by one of his intimate friends. Dr. Melaas' life as a friend, neighbor and as a man was the substance of the address.

Dr. L. E. Jones, Prescott physician, is formulating plans for an up-to-date hospital in that city. The Prescott Commercial Club has raised, by subscription, $2,000 as a gift to the hospital. The hospital will be situated on a five-acre tract overlooking the town and Lake St. Croix.

Dr. Dean Jeffers, West Salem, will sever his connections in that city and will join the Sparta Clinic about November 1st. The physician plans to leave West Salem about July 1st for four months of post graduate work prior to his connection with the clinic.

Dr. T. J. Oliver, chief of the Green Bay Health Department, spoke at the regular meeting of the Gyro Club held recently at the Northland Hotel. His subject was "The Functions of a City Health Department."

Dr. J. H. Gregory, eye, ear, nose and throat specialist of The Clinic, Ashland, left recently for Danville, Ill., where he will practice in the future.

Dr. D. E. Morehead, formerly of the Wisconsin General Hospital, Madison, has purchased the practice of

the late Dr. E. J. Ziegler of Oxford. Dr. Morehead is a graduate of the University of Minnesota School of Medicine and was for some time connected with the Mayo Clinic before accepting the position with the Wisconsin General Hospital.

The fifth season of motorized health service for rural mothers in Wisconsin is again well under way. This traveling health center, mounted on a truck chassis and moderuly equipped, heated and lighted, is operated by the Bureau of Child Welfare of the State Board of Health. It is manned this year by Dr. Sylvia G. Stuessy, examining physician, Walter A. Drews, Milwaukee, chauffeur and mechanician, and Miss Florence Hoesly, formerly school nurse at Eau Claire, who will serve as nurse until June 1st, when Miss Ellen Raether, school nurse at Marshfield, will join the staff to serve until the close of the season in November.

The schedule follows: Brown county, May 24-28, June 1-2, 14-15; Kewaunee county, June 3-12; Shawano county, June 18-25, 28, July 2; Taylor county, July 9-10, 12-16; Sawyer county, July 19-23, 26-30; Douglas county, Aug. 16-20, 23-27; Burnett county, Aug. 30, Sept. 3, 6-10; Polk county, Sept. 20-25, 27, Oct. 1; St. Croix county, Oct. 4-8; Eau Claire county, Oct. 11-15, 18-22; Richland county, Oct. 25-29, Nov. 1-5; Iowa county, Nov. 8-12; Washburn county, Aug. 2-6, 9-13.

Dr. Walter P. Tippett, Milwaukee, has just recently become associated with Dr. Julius J. Bellin of Green Bay. He obtained his degree from the University of Illinois, having previously received his degree of Bachelor of Arts from Lawrence College and his pre-medic training at the University of Wisconsin. It is announced that Dr. Tippet will establish a department in the Bellin Memorial Hospital to be especially devoted to the diseases of children.

Dr. H. E. Fillbach, formerly of Montfort, has established his practice at Hazel Green.

Dr. William J. Carson, Associate Professor of Pathology and Instructor in Genito-Urinary Surgery, University of Maryland, has resigned to enter private practice in Milwaukee. Dr. Carson will limit his practice to Genito-Urinary Surgery.

"Our Second Selves" was the subject of an address given by the Rev. Albert C. Fox, S.J., president of Marquette university, when the annual class was inducted into the Circle, official honor society of the Marquette University School of Medicine.

"All of us have a second self that lives each day in a private world afar from the empty noises of politics and the tumult of the day's work," declared Father Fox, "a secret self that is astir even when men are laying bricks or lecturing in classrooms, dictating business letters or playing golf. It is a self that senses on occasions, and frequently on the most unexpected of occasions, the futility of most of our activities, the selfish side of many of our friendships, the ugliness of some people generally thought beautiful, the tragedy of completely wasted time, the hypocrisy of certain of our acts of generosity and the discrepancy between our religious beliefs and many if not most of our religious practices. On the other hand, this second self is sometimes startled by the discovery of noble impulses we did not know we had. It is the self we see so clearly when alone at dusk or tossing in bed in the bleak hours before dawn. It is the self that teaches us that we are never less alone than when we are alone."

Dr. John M. Dodd, Ashland, is taking an automobile trip to Philadelphia to attend his son's graduation from the Medical School of the University of Pennsylvania. He will also attend the Sesqui-Centennial.

Dr. C. O. Hertzman and family of Ashland are also driving east to attend the Sesqui-Centennial and while in the east, Dr. Hertzman will attend a convention of the Lutheran Church to which meeting he is a delegate.

Philadelphia has drawn another member from Ashland in Dr. C. J. Smiles, who is in the east to attend the Fifteenth Reunion of his class in medicine at the University of Pennsylvania.

Dr. W. J. Tucker, Ashland, attended the Minnesota State meeting at Minneapolis which was held during the week of May 17th. A large number of Wisconsin physicians in territory attributable to the Twin Cities attended this meeting.

Members in the Fifth Councilor District will have a treat in store for them on July 1st and 2nd. At that time they will hold their first district meeting at Elkhart Lake. A special program for the members and their wives is being arranged for the first day. On that evening Dr. Arthur D. Bevan of Chicago and Joseph F. Smith, President of the State Society, will speak to the members at a banquet.

The scientific meeting will start early on the second day and the program includes Dr. Joseph Miller and Dr. Herman Kretschmer, Chicago, Dr. Edward L. Miloslavich, Milwaukee, Dr. Karl Doege, Marshfield, Dr. Erwin Schmidt, Madison, and Mr. R. G. Knutson, member of the State Industrial Commission. The program will end about 5:00 on the second day.

Special arrangements are being made for the meeting and a large attendance is anticipated.

ENGAGEMENTS

Dr. Merle Q. Howard, Milwaukee Sanitarium, Wauwatosa, to Miss Anita Clark of Berkeley, California.

MARRIAGES

Dr. Harry H. Ainsworth of Birchwood and Miss Hilda M. Kalb, Milwaukee, were united in marriage on May 1st.

The marriage of Dr. John R. Dundon and Miss Loretta Sherman, both of Milwaukee, took place on May 1st.

DEATHS

Dr. Clarence J. Willard, Wauzeka, died suddenly of angina pectoris at his home on May 17th. He was born at Prairie du Chien, July 14, 1884, and graduated from the University of Illinois College of Medicine in 1909 and obtained his Wisconsin license the following year. After graduating he served one year as intern in St. Anne Hospital, Chicago, was in Prairie du Chien one year, then located at Wauzeka.

Dr. Willard was formerly a member of the Crawford County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his widowed mother. Dr. Willard was buried at Prairie du Chien.

Dr. W. E. White, Burlington, died at his home Sunday morning, May 9th. Although he had been in poor health for the past year he was actively engaged in practicing his profession until his sudden death. Dr. White was born July 25, 1861, in Dixon, Ill. He graduated from the Milwaukee Medical College in 1897 and settled down to country practice in Lyons, where he remained for a number of years. After removing to Burlington he became interested in the fight against tuberculosis and was a strong advocate of the compulsory testing of cattle. The doctor served as health officer of Burlington from 1914 to 1926, with the exception of two terms.

Dr. White was a member of the Racine County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife and one son, Wallace, who is connected with the Anti-Tuberculosis Association at Milwaukee.

Dr. Robert S. Mitchell, Appleton, died suddenly on Monday evening, May 17th, at his home. He was born in Red Cloud, Neb., in 1877 and graduated from Northwestern University Medical School in 1906. After practicing in Red Cloud for seventeen years Dr. Mitchell came to Appleton in 1921 and became associated with Drs. J. B. MacLaren and J. S. Reeve. The Doctor was a member of the Ontagamie County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Bearers at the funeral were Drs. E. L. Bolton, V. F. Marshall, A. E. Reetor, Charles Reineck, E. A. Morse and J. L. Benton, all of Appleton. He is survived by his wife, two daughters and one son.

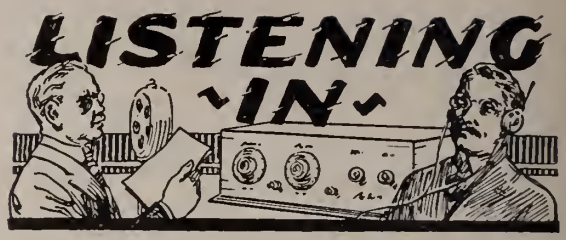
SOCIETY RECORDS

NEW MEMBERS

Falstad, Clarence H., 122 So. Barstow St., Eau Claire.
McCusker, Chas. F., Glenwood City.
Prentice, Jno. Watson, Deer Park.
Armstrong, Joshua, New Richmond.
Jewell, E. L., Loganville.

CHANGES IN ADDRESS

Combacker, Leon C., Appleton, to Stillwater, Minn.
Linhardt, O. V., Mondovi, to Michael Reese Hospital, Chicago.
Gregory, J. H., Ashland, to Danville, Ill.
Fillbach, H. E., Montfort, to Hazel Green.
Hilliard, H. G., Minong, to Hayward.
Janney, F. R., Waukesha, to 418 E. North Ave., Milwaukee.



JUST A TIP

In a recent threatened suit a patient claimed a severe x-ray burn from a fluoroscopic examination. Probably the patient was particularly susceptible to the roentgen-ray but the point is that the threatened case found the doctor without records. The patient claimed that he had been kept before the fluoroscope for upwards of five minutes. Undoubtedly he was wrong but it would have been of inestimable value had the doctor made some notation on the record following the examination.

AND ANOTHER

President Smith, speaking before the Radiological Section of the Society, mentioned that in fracture cases he made it a routine practice to take an x-ray just before the patient left the hospital. When later questioned as to his reason for this procedure he explained that such a record was solely for his own protection.

BE CAREFUL

Probably no member would sign a contract for $1,500 worth of service without submitting it to a most careful and thoughtful examination. And yet we find that members are daily signing contracts with collection agencies, which may involve much larger sums, and signing them immediately following a sales talk. We advise caution. By that we do not mean to say that the majority of collection agencies use sharp practices but we point out that two proffered advertising accounts were recently rejected.

A physician should not sign a contract that permits the agency to bring a lawsuit without the physician's specific consent. Collection agencies in Wisconsin are required to post a $5,000 bond with the Secretary of State. Has the agency approaching you complied with that law or does it operate from without the state? Again we say, be careful.

Your Secretary has seen a contract that bound the physician for a period of two years. Certainly a thirty day cancellation clause should be required. Another contract states that offers of compromise are to be accepted by the agency and physician mutually. It is hardly to the agency's advantage to compromise and with such a clause they are in position to say "No" no matter what may be the physician's desire.

We shall say more on this subject later. For the present we repeat the warning to take some time in reading proposed contracts before they are signed.

A MATTER OF LAW

This column seems to be running to legal matters this month but here is another case we cannot omit. An agent fails to make an out-and out sale of a certain machine. He then offers to let the physician use

it for three months and if at the end of that time the physician is not satisfied, the agent says he will take back the machine. To this the physician agrees, whereupon the agent produces a sale contract. In this contract no mention is made of the proposition just made orally. The physician asks if that should not be stipulated and the agent says that is not necessary.

Be careful! In law the written contract is the best evidence of the agreements made. If your agent dies, removes or forgets, the doctor pays.

RENEWAL DUE

Do not forget that you are to renew your narcotic permit this month. And this time the fee is $1 instead of the $3 you have been paying. Medical societies pay dividends in more ways than one.

MINNESOTA GOES UP

Members of the Minnesota State Medical Association will pay $15 state dues hereafter. The dues were raised at the annual meeting in May from the former amount of $5 a year.

A GOOD INVESTMENT

A member recently told your Secretary that one of the best investments he had ever made was the purchase, for $2, of an official A. M. A. physician's automobile emblem. He said that he felt it had been very helpful in getting through heavy traffic and in giving him some leeway as to the parking laws when out making calls.

SCHOOL EXAMINATION POLICY

A member recently advised the Secretary that in making an examination of school children he received a written request from a parent that a child be exempt as provided by law. The member asked if the law provided for exemptions and inquired as to the general policy of the State Board of Health. The following is the advice given by the State Board of Health:

"Mr. Crownhart writes that you are school physician at Wauwatosa and the question comes up concerning the examination of school children, etc., first, for general physical condition and second, for the possibility of communicable diseases.

"The question of authority to make these examinations is not specifically stated in the statutes. The State Board of Health, however, has laid down a policy or recommendation which we believe reasonable and recommend be carried out. Of course, it is to be remembered that school boards have much authority concerning the general school program and it is not our desire to interfere in the least with what programs the school boards may desire to put into effect. As before stated, there is no state law governing the health examinations of school children. The State Board of Health has made no ruling but has made the following recommendations many times—first, when it comes to examining school children for physical defects no such examinations will be made of any child if a written request from any parent or guardian is received to the effect that they do not desire to have their child or children examined in school. We believe this to be safe and reasonable policy and hope it will be carefully adhered to by all people making general physical examinations of school children which are of the written type; secondly, when it comes to the examination of school children for the prevalence of communicable diseases we recommend that if the parents or guardian of any child does not desire to have such child examined by the school physician for communicable disease, that no such examination be made, but the child sent home and to be returned to school only upon a note from the health officer or a physician acceptable to the school board. We believe, further, that it is wise to prohibit school children from entering the more active field of athletics until the child is either examined by the school physician and found to be sound or brings his certificate of examination by a medical man, stating that such applicant is physically sound and safe to take up the more vigorous type of athletics. This is our recommendation for many years, has met with general approval and we believe it a safe procedure."

TWENTY YEARS AGO

"I hope the day will soon arrive when every newspaper in the United States with a pretense to decency shall set itself against the questionable, not to say obscene, medical advertisement."

So declared Rev. J. C. Hodgins in his Doctorate Address before the Wisconsin College of Physicians and Surgeons, printed in the June, 1906, issue of the Wisconsin Medical Journal.

"It is a foul wrong against the community. Commercialism, greed of dividends is at the bottom of this iniquity. There is no excuse for it. It is a debauching influence, and should be stamped out by an enlightened public opinion. Need I say that the doctor who is a gentleman will never advertise? His best advertisement, as a matter of fact, will always be that he is a gentleman."

In 1906 the Wisconsin Medical Journal was published by private initiative, though it was the official organ of the State Society. Dr. A. J. Patek, Milwaukee, was its Editor; Dr. Otto H. Foerster, Milwaukee, Assistant Editor; Drs. Charles S. Sheldon, Madison, Charles H. Stoddard, Milwaukee, and Albert W. Myers, Milwaukee (deceased), were the Associate Editors. The Managing Editor was Dr. Hoyt E. Dearholt, Milwaukee.

Among the original articles, Dr. W. B. Hopkins of Cumberland reported on two years' experience in the sanatorium treatment of tuberculosis "In the Pineries of Northern Wisconsin." Dr. Hopkins' work initiated the sanatorium movement in this state. It is of interest to note that he declared, "our greatest obstacle was to get patients to remain in the sanatorium after they were so far recovered as to feel perfectly well, though the local trouble was not fully cured, and there were still bacilli in the sputum."

In the editorials appears one commenting on the then recent exposé of unclean methods used by Chicago packing houses. The packing of "embalmed" food was declared to be the "soaring climax of cupidity" and it was

further suggested that in comparison with those who had sold condemned products, the "burglar and highwayman both pursue peaceful and praiseworthy callings."

Dr. J. R. Currens of Two Rivers was then President of the State Society, with "Charlie" Sheldon as Secretary and "Sid" Hall as Treasurer.

The annual meeting of the State Society was to be held in June at Milwaukee.

Several Innovations Included in Preliminary Plans for Eightieth Annual Meeting at Madison in September

Preliminary plans for the September annual meeting of the State Medical Society at Madison call for several changes in the outline of meeting as had heretofore. Changes adopted include changes in form of scientific program, date and place of president's address, and form of entertainment.

Instead of the plan of presenting the President's address following the Annual Dinner on Thursday, the second evening, this year the President's address will be given at a meeting open to the public in the First Congregational Church on Wednesday evening, the first evening. Following the address an informal smoker with special entertainment will be given at the Loraine Hotel, headquarters for the meeting.

On Thursday afternoon the scientific program will be concluded at 4:30 to allow members and their wives to attend an informal reception on the upper campus of the University. Special transportation facilities will be provided to convey the members to the campus and to bring them back to the Hotel. At seven Thursday evening the Annual Dinner, informal, will be held in the large main banquet hall of the Loraine. Immediately following the dinner a special program of entertainment will be given on a stage specially erected for the occasion. Upwards of six hundred dollars will be expended in securing talent for this evening entertainment.

Plans for the scientific program are rapidly taking shape under the direction of Dr. Hugh P. Greeley, Madison. The three days' program will be divided into six half-day sessions on subjects which will be of the greatest interest and value to the general practitioner. Specialties will be represented in this program as they apply to the general subjects under consideration in the symposia. Each symposium will be closed with a dry clinic conducted by a guest-speaker.

Subjects now included in the symposia include pediatrics, surgery, internal medicine, use and abuse of drugs and physical therapy, the allergies, and one other field to be announced later. One feature of the scientific meeting will be a demonstration of a periodic health examination.

A special convenience of the coming Madison meeting will be the fact that the entire meeting will be held in the Loraine Hotel. The mezzanine floor with its several halls and spacious meeting room has been secured and will house not only the scientific meetings, but the meetings of the House of Delegates, committees, and the scientific and technical exhibits.

LARGE TECHNICAL EXHIBIT

A large technical-scientific exhibit will be an attraction of the meeting. Early reservations have contracted for all but six of the technical exhibit booths. It is expected that all spaces will be reserved two months before the date of the meeting.

The general scientific sessions will be preceded by the second annual golf tournament on Tuesday, September fourteenth. The two traveling trophies, the President's and Secretary's cups, will be re-awarded as result of this play and other trophies will be given to complete an appropriation of over $100.

On Tuesday evening the House of Delegates will hold its first session at the Loraine. Previously the major part of the evening has been given over to the reading of committee reports. This year all committee reports not carrying specific recommendations for action by the House of Delegates will be referred directly to reference committees. Those reports including recommendations for changes in policies or appropriations will be briefly summarized and then referred to reference committees or given immediate action on the floor. In this way business will be greatly expedited and much important business will be transacted at the first meeting.

Pursuant to recommendation of the 1925 House of Delegates, a revised constitution and by-laws will be submitted to this annual meeting for adop-

tion. The special committee has been at work since the last session and annotated copies of their report will be in the hands of each delegate many weeks prior to the meeting.

Additional features for the eightieth meeting will be published in succeeding issues of the Journal as well as the preliminary and final scientific programs.

Important Resolutions Outlining Policies Adopted by House of Delegates of American Medical Association

Six important resolutions adopted at the Dallas session of the American Medical Association stand out as most important in outlining future policies of the medical profession. That Wisconsin again leads in the field of legislation is indicated by the resolution on expert opinion evidence in which a procedure is outlined which is in force in but Wisconsin at the present time.

The original resolution was offered by Dr. G. E. Follansbee of Ohio. It was referred to the Committee on Legislation and Public Relations of which committee Dr. Horace M. Brown, Milwaukee, was chairman. After extensive hearings and discussion on the floor of the House a resolution was adopted embodying the Wisconsin plan which has the approval of the American Bar Association. It is the request of Dr. Brown that county medical societies consider this resolution and endorse the action of the House or make further suggestions in the effort to solve this national question.

Other important resolutions pertain to the training of nurses, uniformity in policies of constituent societies, use of the title "Doctor," a survey of needs in the field of public health education, and a fifth pertaining to the prevention of deafness. The resolutions as adopted are printed herewith.

BASIC TRAINED NURSE

Resolved, That there is a great need throughout the country for a basic trained nurse, and that all pupil or student nurses shall receive basic training in training schools connected with hospitals giving courses of two years. The curriculum should be thoroughly revised so as to provide bedside instruction, classroom lectures and demonstrations and, above all, the teaching of the art of nursing by precept and example so as properly to fit the pupils or students for their work as nurses in the hospitals and in the homes.

Graduates, after passing the state examination, should be registered as trained or, if preferred, registered nurses. Such trained or registered nurses may become public health or other specially designated nurses after being properly admitted to post-graduate schools for nurses and passing the required examination.

Resolved, That the Board of Trustees appoint a committee on nurses and nursing education to investigate and report to the next House of Delegates the results of its investigation and constructive thought on the nursing question and especially on the subject of increasing the number of bedside nurses throughout the several states; the Committee on Nurses can be empowered to confer with the National Nurses' Association, hospitals and other committees having similar objects.

UNIFORMITY IN POLICIES

Whereas, The strength of the medical profession in the field of legislation is lessened by lack of uniformity in policies and methods; and

Whereas, Such uniformity can be promoted and established only through cooperation among the several state associations whereby each will have the benefit of the knowledge and experience of all others; and

Whereas, Such cooperation can be best established through the Board of Trustees, acting through the Bureau of Legal Medicine and Legislation; be it

Resolved, That every state association be urged to cooperate to the fullest possible extent with the Board of Trustees in all matters of legislation, state and national; and be it further

Resolved, That the Board of Trustees be requested to extend to every state association all such assistance as may be possible in defining and carrying into effect its legislative policies, and in promoting uniformity in them.

TITLE "DOCTOR"

Whereas, The title "Doctor" in a medical sense has from the earliest times been associated with the treatment of human ailments; and

Whereas, Most of the states now grant licenses to treat the sick to persons of limited educational qualifications, such persons not being graduates of reputable medical schools; and

Whereas, The use of the title "Doctor" by persons of inferior educational qualifications constantly misleads the public, resulting in much unnecessary suffering and many untimely deaths; therefore, be it

Resolved, That it is the sense of the American Medical Association that, for the protection of the public, the title "Doctor" in a medical sense be restricted to doctors of medicine and doctors of dental surgery.

PUBLIC HEALTH EDUCATION

Resolved, That the House of Delegates requests the Board of Trustees to appropriate sufficient funds to defray the expenses of a survey, the purpose of which shall be an investigation of ways and means to best promote public health education.

(Continued on page 320)

THE JOURNAL BOOK SHELF

Symptoms of Visceral Disease. By Francis Marion Pottenger, A.M., M.D., LL.D., F.A.C.P., Medical Director, Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, Calif. A study of the vegetative nervous system in its relationship to clinical medicine. Third edition with eighty-six text illustrations and ten color plates. Price, $6.50. C. V. Mosby Company, St. Louis, 1925.

Development of Our Knowledge of Tuberculosis. By Lawrence F. Flick, M.D., LL.D., Co-founder of the Rush Hospital for Diseases of the Chest; Organizer of the Pennsylvania Society for the Prevention of Tuberculosis. Price, $7.50. Lawrence F. Flick, M.D., 738 Pine St., Philadelphia, 1925.

Massage and Therapeutic Exercise. By Mary McMillan, supervisor of Aids in Physiotherapy, Medical Corps, U. S. A., 1919-20. Second edition, reset. Pages, 331, with 17 illustrations. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia and London.

Inter-State Post-Graduate Medical Association of North America, St. Paul Proceedings, Oct., 1925. The Schueppert Printing Company, Milwaukee, Wisconsin.

Lectures on Nutrition. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1924-1925, 243 pages, illustrated. Cloth, $2.50 net. W. B. Saunders Company, Publishers, Philadelphia and London, 1925.

Ultra-Violet Rays in the Treatment and Cure of Disease. By Percy Hall, M.R.C.S., England. C. V. Mosby Company, Publishers, St. Louis, 1924.

A Text-Book of Psychology for Nurses. By Maude Muse, A.M., R.N. Illustrated. W. B. Saunders Company Publishers, Philadelphia and London.

BOOKS RECEIVED FOR REVIEW

Diathermy With Special Reference to Pneumonia. By Harry Eaton Stewart, M.D., formerly attending specialist in Physiotherapy, U. S. Marine Hospitals, N. Y. Second edition, revised, with 45 illustrations and 15 charts. Price $3.00. Paul B. Hoeber, Inc., New York.

Blood Chemistry Colorimetric Methods. For the general practitioner with clinical comments and dietary suggestions. By Willard J. Stone, M.D., attending physician, Los Angeles General Hospital and Pasadena Hospital. Second edition, revised. Price, $3.25. Paul B. Hoeber, Inc., New York.

Collected Papers by the Staff of the Henry Ford Hospital. First series 1915-1926, with 151 illustrations and 42 charts. Price $8.00. Paul B. Hoeber, Inc., New York City.

The Surgical Clinics of North America. Volume VI, No. 1, Philadelphia Number, February, 1926, 325 pages with 136 illustrations. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

Diabetes and Its Treatment by Insulin and Diet. By O. H. Petty, M.D., and W. H. Stoner, M.D. F. A. Davis Company, Publishers. (Second Edition.)

The second edition of this manual, which is written for the use of patients, is a revision of the text which appeared a year earlier. The important revisions, aside from corrections in the original text, are the addition of more data on normal weights and more emphasis on prevention of diabetes. The author also endorses strongly the low salt treatment of hypertension which has been advocated by F. M. Allen. Directions for following this diet are given in the book.—E. L. S.

Psychoanalysis and Beyond Psychoanalysis. By Leonard L. Landis, M.D., Editor-in-Chief of the "Life and Health" Magazine. Present National Chairman of the American Association of Independent Physicians.

This book deals with neuromental troubles and besides, a short resume about Psychoanalysis. The author analyzes, in a very brief but reasonable way, the different opinions in regard to the different theories. The nature and purpose of Psychoanalysis, the relation of energy to matter and the subconsciousness are described in an easily understandable way. Also, this author brings in a vocabulary of his own. He calls the effort to explain theoretical science beyond the visible manifestation of the universe and of ourself as "Psycho-Cosmology." It is difficult to follow the author into this unknown territory. It is hard to understand how "Psycho-Cosmology" transforms the subconscious thought into energy of an imperishable stuff and transforms itself radio-actively into any other form of energy.

The author also pays much attention to the development of mathematics and to applied mathematics. He tries to explain that science should break away from the hard and fast rule-to-thumb calculations and extend its researches into the field of the psychic and subconsciousness.

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As a whole, this book can be read within two or three hours and gives the shortest resume of the psychoanalytic matter. There is nothing new in this book with the exception of a long description of the new "Psycho-Cosmology."

I do not believe that it is necessary to have this book in a library in which many books on Psychoanalysis are already available.—H. H. R.

Medical Clinics of North America. Volume IX, Number IV, Tulane University Number, January, 1926. Octavo of 381 pages, with 49 illustrations. Per clinic year, July, 1925, to May, 1926. Paper, $12.00, cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

This issue contains Clinics given at Tulane University and a number of them are devoted to conditions usually found in the warmer climates, such as Malaria, Hookworm, Amebic Dysentery and Ainhum.

Of special interest is a Clinic given by Dr. G. R. Herrmann on "The Unusual Manifestations of Heart Disease." He brings out by numerous case reports the fact that symptoms which one would ordinarily ascribe to abdominal conditions are occasionally produced by the heart. The ordinary heart conditions present no great difficulty in diagnosis, but the atypical case "taxes the acumen, ingenuity, and diagnostic resources of the experienced clinician."

The subject is thoroughly discussed.—R. B. M.

Thoracic Surgery. The surgical treatment of thoracic disease. By Howard Lilienthal, M.D., Prof. of clinical surgery at Cornell University Medical School. Two octavo volumes totaling 1294 pages, with 904 illustrations, 13 in colors. W. B. Saunders Company, Philadelphia and London, 1925. Cloth, $20.00.

The above two volumes apparently cover the entire subject of chest surgery in a very concise and easily readable manner. In fact, it is quite certain that this work is the only one in English which adequately covers the entire subject of Thoracic Surgery. Volume I details all the essential facts concerning the fundamental principles of physiology, anatomy and diagnosis, and in addition authoritative chapters by competent collaborators on roentgenology, general anesthesia and blood transfusions. The succeeding chapters and all of Volume II portray the treatment of all the diseases of the chest. The author's intention to give the general medical profession a guide to the diagnosis of Surgical Thoracic Diseases and the possibility of their surgical therapy has been accomplished in a splendid manner.

—A. G. S.

A Compend of Obstetrics. Revised and edited by Clifford B. Lull, M.D., Instructor of Obstetrics, Jefferson Medical College, Philadelphia; attending physician, Dept. of Gynecology and Obstetrics, Philadelphia General Hospital. Especially adapted to the use of medical students and physicians. Tenth edition, 84 illustrations. Price, $2.00 net. P. Blakiston's Son & Co., Philadelphia.

Since Landis Compend of Obstetrics has been found to be sufficiently popular to pass through nine editions, there is very little that need be said about the present Tenth Edition.

It, of course, can only be used as a reference outline of the science of Obstetrics although some of the more established methods of procedure are given in detail. However, only mention is made of Reuben's test for artificial pneumo-peritoneum and of the use of Kieland's forceps, both of which have become universally popular.

—I. A. B.

Treatment of Kidney Diseases and High Blood Pressure. By Frederick M. Allen, M.D. Part I. Practical Manual for Physicians and Patients of 206 Pages. The Physiatric Institute, Publishers, Morristown, N. J.

Since Dr. Allen attracted such wide attention a number of years ago when he first advocated the "starvation treatment" in diabetes, his contributions to Medical Literature are always read with much interest by the medical profession.

More recently he has written much regarding the benefits of protein and salt restriction in treating renal-vascular diseases. Both of these methods, especially the former, have long been used by many investigators. Some of the reports have been highly favorable, others not so much. It is probably impossible to say definitely that protein restriction or salt restriction or both are the most important means of relieving the usual disturbances, nitrogen retention, edema, and hypertension, involved in the renal-vascular syndrome. In some cases—possibly many—they are most valuable.

In this manual Dr. Allen has presented much that is very useful for both practitioner and patient, in a rather concise, brief way.

It is doubtful how much good it will do the patient to read the Chapter on Laboratory Procedures. Chapter XIII—Principles of Diet—contains many recipes which can be used in preparing Allen diets and definite instructions about using them.

If a physician uses care in recommending this book to certain patients, it should help him in the management of many cases.—W. A. M.

A. M. A. OUTLINES POLICIES

(Continued from page 317)

EXPERT OPINION EVIDENCE

Whereas, The present court procedure in expert opinion evidence in both civil and criminal cases has in many instances brought public criticism and disgrace on both the legal and the medical professions; and

Whereas, The present procedure in many cases is believed to defeat the administration of justice; and

Whereas, An effort is being made in many states by the bar associations and medical societies of those states to correct such maladministration of justice, and to relieve the legal and medical professions of the public criticism now received; and

Whereas, The American Bar Association is actively pursuing the above laudable effort; therefore, be it

Resolved, By the House of Delegates of the American Medical Association that it recognizes the urgent need for such remedial legislation and such change in court procedure as will correct the abuse of expert opinion evi-

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W. J. BLECKWENN, M. D.
F. J. HODGES, M. D.
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dence; approves the efforts of the various bar and medical associations; and further be it

Resolved, That the House of Delegates endorses the principle that in civic and criminal cases the court may appoint expert medical witnesses, who shall be paid out of public funds, and who may furnish a written report; and that the American Medical Association offers its cooperation by such means as lie in its power to promote such legislation as will be mutually satisfactory to the medical and legal professions toward the correction of the present unsatisfactory procedure of presenting expert opinion evidence, and the Board of Trustees is hereby requested to use the facilities of this organization in such a way as to give effect to the sentiments expressed in this resolution.

And further that the House of Delegates endorses certain principles approved by the Committee on Jurisprudence and Legal Reform of the American Bar Association, and by the American Institute of Criminal Law and Criminology as follows:

That in civil and criminal cases where the issue of insanity is raised, expert medical witnesses may be appointed by the court, and paid from public funds, and that such witnesses may present a written report.

Be it further

Resolved, That a copy of this resolution be sent to the American Bar Association.

PREVENTION OF DEAFNESS

Recognizing the fact that the most effective means for the prevention of deafness consists in the early detection of hearing impairment, thereby giving opportunity for the prompt removal of contributing causes, and believing it to be one of the important functions of our public school authorities to safeguard the integrity of the special sense organs as well as the general health of the school child; be it

Resolved, By the Section on Laryngology, Otology and Rhinology of the American Medical Association that it heartily favors the provision by our public school authorities for regular, periodic examinations of the hearing acuity of all public school children, such examinations to be adequate to detect even slight degrees of hearing loss; and be it further

Resolved, That this resolution be referred to the House of Delegates of the American Medical Association for its endorsement.

Endorsed by the House of Delegates.

PUBLIC HEALTH NOTES
FROM THE
STATE BOARD OF HEALTH

Can a health officer legally keep a boy out of school who has epilepsy? It was replied that this can be done upon the direction of the city physician or health officer. The board said: "It is not fair to the other children to subject them to the ordeal of witnessing a violent epileptic fit. This is a matter for the school board to determine."

The board answered an inquiry as to the wisdom of cousins marrying. The Wisconsin law prohibits the marriage of persons who are nearer of kin than second cousins computed by either the whole or the half blood, unless the female is over 50 years of age. Experts advise against marriage of blood relatives regardless of whether there is any evidence of insanity, feeble-mindedness or other mental or nervous disease in either family.

"We know of no ruling," a correspondent was informed, "that will prohibit a limousine funeral car from being used as an ambulance for carrying the sick, but of course it is to be understood that it be kept clean at all times."

"Are public gatherings such as teachers' institutes allowed in localities where infantile paralysis is prevalent?" Replying to this telegram, it was advised against all public meetings in such areas and that local regulations be enforced.

Advised by the Chicago health department of the unauthorized departure of a Chicago youth having the diphtheria bacillus to a Salvation Army camp in Wisconsin, the department communicated the facts to the commanding officer of the organization with instructions to have the boy isolated until negative cultures for diphtheria are obtained from the nose and throat.

Can the school nurse or teacher exclude a child on suspicion if we do not supply a physician? (We have no school doctor). To whom will these people be referred if they say they can not employ a physician? If they refuse to come back to school or have a doctor's report, what stand can school authorities take?"—From a school nurse.

The board replied: "You will note from the provisions of Rule 17 that it is the duty of the teacher to exclude without delay any pupil who is obviously ill or who has a severe cough, a severe cold, etc. It is not necessary in these cases to employ a physician to diagnose the nature of the ailment. The fact that the child has a severe cough, is running a temperature or is otherwise ill is sufficient ground for excluding the child.

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Excessive Vomiting of Pregnancy and Eclampsia*

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There are some not uncommon complications of pregnancy which are usually grouped under the term toxemias of pregnancy. This term, it seems to me, is either unfortunate or else an actual misnomer. The reasons for believing this are these: Looking upon these conditions as possibly caused by a toxemia, there has resulted a tremendous amount of investigation and no toxin has been discovered. Fetal and placental tissues and the intestinal canal, as sources of the toxin, have been investigated extensively with no definite positive findings. It would seem from the result of all this work that the so-called toxemias of pregnancy might actually not be toxemias, and the term, therefore, a misnomer. What has been the result of looking upon these conditions as possible toxemias so far as results and therapy is concerned? Why should these conditions have been considered toxemias at all? It might be said that individuals with these so-called toxemias look toxic. Do they? If one knew nothing at all about the hypoglycemic reaction from insulin, and saw a patient in insulin shock, he could call that a toxemia; and clinically might even call it an eclampsia or a so-called nephritic toxemia of pregnancy, and yet the condition in insulin shock has resulted from a speeding up of a normal metabolic process and is certainly not a toxemia.

Has any appreciable progress been made in the treatment of eclampsia? I think that is open to question. If anything at all has been accomplished, it seems to me that the methods of treatment of eclampsia have traveled in a circle and we are just about where we were forty or fifty years ago. Various rigorous methods of treatment have been suggested and used; even such operations as cesarean sections of various types, high forceps, and other procedures have been used. If anything, the mortality and the results following such treatment have been worse than when patients have received practically no treatment at all. If one were to summarize, the consensus of opinion, as to the best method of treating eclampsia today is to give sedatives and treat expectantly.

Now it might mean that treating these conditions expectantly indicates that you expect these people to die. As a matter of fact, a good many of them do not. Are there any results that have come from newer and more modern methods of laboratory investigation that give us reason to believe that we know more about the etiology of these so-called toxemias now than we ever did? The chemical investigation of the blood has been done accurately and very extensively and along many different lines. The nitrogen content of the blood has been studied. There are no conclusive results from this. There might be, in some of these patients, a mild degree of nitrogen retention, but nothing commensurate with the degree of retention which occurs in a patient with a definite nephritis who looks clinically as sick as the eclampsia patient.

The blood calcium has been studied and it has been thought that, possibly, a deficiency in calcium might account for some of these states. Possibly there is less calcium in the blood of these individuals than in normal individuals, but no less than in the blood of normal pregnant individuals. The diminution in calcium is not great enough to account for these very marked symptoms. Recently, however, there are some data which indicate that some helpful information might be found, and that is along the line of the study of the carbohydrate metabolism with blood sugar studies, etc., and with studies of the acid-base, balance of the blood.

These conditions can be divided into three groups, one of which is called toxic vomiting of pregnancy, certainly a loose term and which might better be called the excessive vomiting of preg-

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nancy. This condition is usually confined to the early months of pregnancy. There remain two groups, one has been called erroneously, I believe, the nephritic toxemia of late pregnancy, and the other is eclampsia. Of course, eclampsia can occur during pregnancy, during labor or after labor.

The findings in the blood in severe cases of excessive vomiting of early pregnancy show that there is a lowered alkali reserve. We also find that there is acetone and diacetic acid in the urine. The combination indicates an acidosis. The finding of acetone and diacetic acid in the urine alone would not necessarily indicate an acidosis, because such can occur in an alkalosis. Has such an acidosis or alkalosis any serious significance?

This newer information cannot be passed off by clinicians as mere laboratory findings. The information that we get concerning these conditions of the blood are of extreme clinical importance, and we must realize that in conditions of acidosis the body functions abnormally. If the condition of acidosis persists long enough, secondary complications or even death may result. Should an alkalosis exist, more recent investigation has shown it to be a more serious condition than an acidosis. It should therefore be seriously considered.

ALLEVIATION OF ACIDOSIS

In the consideration of excessive vomiting of pregnancy, what can be done to alleviate the acidosis? If the acidosis is mild, it can usually be alleviated by giving glucose per rectum when the patient is vomiting so much that nothing can be retained by mouth. It is only this type of patient that we are considering.

What is the cause of the acidosis? Whether it is due to a primary disturbance in carbohydrate metabolism, as occurs in all pregnancies, or whether there is some cause which we do not yet know which initiates the vomiting, and thereby causes a starvation superimposing a starvation acidosis is immaterial; we do have an acidosis; we do have starvation. It has been demonstrated that by the administration of glucose in a sufficient amount and by giving insulin to cause rapid utilization of this glucose, one can alleviate the acidosis in a few hours. Acetone will disappear from the urine and almost invariably the excessively sick individual will stop vomiting and be able to retain nourishment.

Does an acidosis exist in eclampsia? Certainly it does in some. Eclampsia is usually observed only during the time of convulsions or when patients are brought into the hospital in convulsions. The fact that they are having convulsions is a complicating factor, because with the convulsions a certain amount of toxemia results and a certain amount of asphyxia; conditions which will by themselves cause acidosis. It has been recently found in some patients that there is a higher blood sugar in these eclamptics while they are having convulsions. This rise in the blood sugar might be caused by the convulsion.

Some eclampsia patients certainly have a marked acidosis, as a matter of fact the most marked non-diabetic acidosis which we have observed was in an individual who had eclampsia. This woman's alkali reserve was 25 volumes per cent carbon dioxide and after she had received some glucose and insulin, her alkali reserve was up to thirty-five in two hours. The patient eventually got well, probably it wasn't the glucose and insulin alone which helped her recovery.

Practically all of these patients are extremely dehydrated. The group that are called nephritic toxemias and nephroclamptics sooner or later show evidences of renal irritation or malfunction upon examination of their urine. Is this renal malfunction the primary cause, or is it a secondary result? For years these patients have been treated with the conception that the renal change was the primary cause. Very little progress has been made in our ability to help these patients. It seems to me more probably that these renal changes are secondary to something else.

CONCLUSION

If my criticism of some of the modern ideas of these conditions has not been wrong, this has been mainly a destructive or monopolistic discussion. One doesn't like to present discussions of that sort. If, however, this conception which we have presented and which we are studying, will enable us to see the errors in other conceptions, it should stimulate and guide us in future endeavors to discover the cause of these conditions, it might not have been out of place to have made this particular type of criticism. We can certainly say that we know no one of authority who is willing to say that he can prove the etiology of these conditions. There has been no agreement in this country or elsewhere as to the best method of treating these patients. The relieving of a condition of

acidosis in these patients is extremely important. It is not the only objective to be relieved by treatment. It seems to me that the best method of treatment is to combine sedatives, give fluids and the proper type of carbohydrates and by colonic irrigation and gastric lavage do what we can to enable the body to eliminate whatever might have accumulated in its tissues. In addition we should use whatever types of therapy are necessary to increase excretion through the kidneys, take the precaution to see that there is no excess pressure in the central nervous system, and if we will treat systematically any other conditions that may show up, we might some day find out the cause of these distressing complications of pregnancy. We can only do this by using as a background what we have learned from other patients and from studies in the laboratory.

The Thyroid During Pregnancy; With Special Reference to Iodin Therapy*

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The discussion of our observations on the thyroid gland in pregnancy involves three fundamental biological reactions: (1) The effect of pregnancy on the normal physiology of woman; (2) the possible effect of excess strain on the ductless glands; (3) the effect of iodin on the metabolism of mother and of child. Following the strand of our argument through these three premises we shall try to prove the existence of a state of thyroid overstrain induced by pregnancy, characterized by disturbances of the iodin metabolism and immediately relieved by proper adjustment of the iodin balance.

Careful observation of large numbers of pregnant women forces the conclusion that the borderland, between normal physiology and pathology is not a sharp line, that the balance between health and disease is delicate, and that insults ordinarily insufficient to produce trouble, may under the extraordinary strain of pregnancy cause disturbances of varying degrees of severity. Pyelitis and pyelonephritis occurring in pregnancy may lie completely dormant after parturition and reappear only at the next pregnancy. Some women regularly show a mild but true diabetes mellitus during pregnancy which disappears completely and cannot be reproduced in the non-pregnant stage. The development of the "kidney of pregnancy" is an excellent argument in favor of the pathological effects of pregnancy. Likewise the study of pregnant women with heart disease has convinced Daly[1] that the treatment of heart disease in the pregnant woman is merely the treatment of organic heart disease plus the extra mechanical strain of pregnancy. It makes no difference in the force of the argument whether the added insult is due directly to the pregnancy or to extra-uterine factors; the result is the same; pregnancy may result in physiological overstrain or may produce pathological conditions.

We have been of the belief that in regions less explored than the heart or the kidney, functional overstrain could be demonstrated if our methods of procedure were sufficiently accurate. Looking for signs of disturbances of the endocrine system in pregnancy does not seem a Quixotic errand, when we consider that the whole sex cycle is fundamentally altered. In normal women the onset of the menopause is frequently associated with a chain of symptoms which in the light of even the most conservative opinions must be considered endocrine in origin. The tremendous gain of weight, the manifestations of changes in the nervous system so frequently seen in women who have ceased or are about to cease menstruating cannot be explained except on the basis of disturbed function of the ovaries or associated endocrine glands.

Pregnant women frequently enough show thyroid enlargement; many of them are psychologically unstable. Others show insomnia, headache, palpitation, tachycardia, increased blood pressure. It is easy to hypothecate for this array of symptoms a basis of "functional nervous instability," but when persistent tachycardia or increased blood pressure are present it seems necessary to seek other explanations. If the whole picture is of nervous origin, sedatives such as the bromides

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should have a quieting effect; but in many such patients bromides are useless. The syndrome lasts for a certain length of time, the patient improves spontaneously or gets worse regardless of ordinary therapy.

CLINICAL OBSERVATIONS

The clinical picture so often is comparable to that presented by mild hyperthyroidism that after a time we began to consider the possibility that we were dealing with some temporary thyroid derangement.

The next question arises: Is there any support for such an assumption? It has been shown by many previous workers that the thyroid gland at the time of the menses, of puberty and during pregnancy, shows signs of hyperplasia. Marine[2] has proved experimentally in animals that great variations in functional activity of the thyroid occur to meet the wide variations of metabolism, especially in the female, and that the conditions in which the thyroid activity is known to be increased, correspond as regards time, to the periods in life when goiter develops. The clinical similarity of the syndrome under discussion to mild hyperthyroidism, and the parallelism to the pictures presented by Marine's animals fairly convinced us of the correctness of our assumption of a functional thyroid disease.

Unpublished observations of many patients in office practice have added much new evidence to our belief that more or less temporary functional changes occur in the thyroid and that a state of hyperactivity of the thyroid gland may be produced by many and varied causes throwing extra strain on the metabolism.

The next step in the argument also falls in with Marine's observations. He showed that increased thyroid activity is associated with decreased iodin store in the gland, provided the intake of iodin at such times is not correspondingly increased; and that if the iodin store falls below 0.1 per cent thyroid enlargement begins. In pregnancy we have increased thyroid activity to meet increased metabolic demands, thyroid enlargement, and symptoms usually caused by hyperactivity of the gland. If the argument is correct iodin is indicated therapeutically, and its exhibition will be followed by relief of the symptoms. Such was actually the case, but before entering into further clinical details, we wish to discuss somewhat more fully the relation of iodin to metabolism.

The relation of iodin to metabolism is not a new subject, and ever since the accidental administration of tincture of iodin to a patient with exophthalmic goiter iodin has been used in the therapy of diseases of the thyroid. Marine's work remains classic. Plummer's[3] more recent contribution to iodin therapy in exophthalmic goiter has stimulated much research. Quite recently we have been told by Mr. D. A. Badenoch, of Chicago, of some interesting facts regarding iodin in animal husbandry. Experimental feeding of large herds of cattle with "iodized food," that is food from dried fish, has resulted in at least two striking effects: (1) Diminution in the number of cases of abortion and retained placenta; (2) marked lowering in the number of calves born with "big-neck" (goiter). According to studies by Cavanaugh,[4] milk from a herd which received this food for over one and one-half years was found to contain a substantial increase in iodin content. These experiments on feeding extra iodin to cattle would seem to define a real rôle to iodin in the economy of pregnancy—a rôle involving both mother and progeny.

INCREASED THYROID ACTIVITY

We believe now that the argument has been carried to the point where facts can prove or disprove it. In addition to the cases previously reported by us[5] we can now present the data on 36 new patients—a total of 61. In these patients we saw evidence of increased thyroid activity due to excessive demands of pregnancy. Usual treatment for nervousness was of no avail; iodin medication was instituted on the assumption already postulated.

Forty-nine patients presented a clinical picture of functional disturbance of the thyroid beginning about the middle of pregnancy. They complained of marked nervousness, irritability and emotionalism; of troublesome insomnia; of palpitation and ease of exhaustion. They presented the following physical findings: enlarged thyroid, tachycardia, tremor, increased blood pressure, and in some instances one or more of the eye signs usually associated with hyperthyroidism. Usually the symptoms began between the fourth and seventh months, although a few began before the third month, and occasionally after the seventh. If the symptoms began after the seventh month, the syndrome was apt to be due to a true exophthalmic goiter.

In about forty of the cases, bromides, from 45 to 60 grains, were given daily for one week, no other medication being used. Only three of the total obtained any relief; the rest were not favorably influenced.

Compound solution of iodin (Lugol's) from three to five drops, three times a day, was then administered to the patients who obtained no relief from bromides. In the later cases the iodin was frequently used without preliminary bromide medication. During the administration of the iodin no other medication was used, the patient's routine of life was not changed in any way. All except three were promptly relieved of their subjective symptoms, usually within seventy-two hours, the most striking result being the relief from insomnia. The three patients who obtained no relief probably had adenomas of the thyroid; they belonged to the early series. In the later series no adenoma patients received iodin medication. In all but one of the cases the blood pressure returned to normal; diminution in the size of the thyroid was apparent in about 50 per cent; tremor and eye signs when present disappeared in all. The pulse rate decreased appreciably in only about one-third of the cases, a fact for which no real explanation is available. It is probably true that other factors than the thyroid influenced the pulse rate. Two patients with persistent nausea and vomiting were completely relieved.

The plan adopted was to administer the compound solution of iodin in courses of one week with intervals of from one to two weeks between the courses. Relief was obtained as a rule within one week; most of the patients, however, received two courses of iodin and several required three weeks before the symptoms were permanently alleviated. One patient had a recurrence of symptoms during the lactation period and responded again to a similar course of iodin.

TRUE GOITER

The smaller group of twelve patients presented the clinical picture of true exophthalmic goiter. They gave histories of several years of symptoms occurring in recurrent cycles. Almost all had definite exophthalmos. Exacerbations of symptoms in this group bore no relation to the duration of pregnancy, occurring at any time from the second month to term. In this group, too, iodin therapy gave relief from subjective symptoms and to a lesser degree from objective signs, but the relief was not permanent and recurrences would usually occur after several weeks of apparent rest. Another course of iodin made it possible to carry such patients through their pregnancies safely and fairly comfortably, although since the completion of the pregnancy several of these patients have had thyroidectomies.

Nothing has been said about basal metabolism in this study. There are two good reasons for omitting this very interesting phase of the subject. In the first place, most of the patients were ambulatory dispensary patients, and it was not desirable to interfere with their routine of life. Again, according to the most recent studies of the basal metabolic readings in pregnancy it is probably true that the increase in basal metabolism found in the later months of pregnancy is not due to a true increase of maternal metabolism but to increased protoplasmic mass of the fetus and in part of the mother. Under such circumstances, occasional metabolic readings would be without value, and, as stated above, it was not desirable to place these patients under hospital observation for a series of metabolic studies whose interpretation at best would be difficult.

SUMMARY

1. On sound reasoning it might be expected that pregnancy by increasing the need for thyroid activity makes excessive demand upon the thyroid gland, diminishes the store of iodin contained therein, and, unless the intake of iodin is increased may produce a state of functional or physiologic overstrain of the thyroid. The result of this strain would be a clinical picture of hyperthyroidism.

2. Such a state of affairs was actually found to exist in a series of 61 patients.

3. Iodin therapy relieved the syndrome completely.

4. The possibility exists that in this or similar functional disturbances we may have a basis not only for the common nervous instability of the pregnant woman but also for some of the toxemias of pregnancy.

5. This study suggests the advisability of increasing under cautious control the iodin supply of the pregnant woman in order to prevent the onset of this syndrome.

REFERENCES

1. Daly, Phil A.: Jour. A M. A., 82:1439, (May 3) 1924.

2. Marine, D.: Arch. Int. Med., 32:811, (December) 1923.

3. Plummer, H. S.: Jour. A. M. A., 80:1955, (June 30) 1923.

4. Cavanaugh, G. W.: Paper presented at the Annual Conference of the American Association of Medical Milk Commissions and the Certified Milk Producers' Association of America, and published in the Monthly Bulletin of the Certified Milk Producers' Association of America, 5: No. 2, 5, (July) 1925.

5. Daly, Phil A., and Strouse, Solomon: Jour. A. M. A., 84:1798, (June 13) 1925.

Prevention and Cure of Prolapsus Uteri*

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The problem of the prevention and cure of prolapsus uteri with or without rectocele or cystocele has been one that has confronted mothers as well as physicians ever since the act of childbirth has become more of a pathological process than it was generations ago. There can be no doubt left in the minds of medical men that the higher one ascends the scale of culture, refinement and education, the more frequently does one find abnormalities in the child-bearing functions of women. In part this is due to the change in musculature and in part to the nervous instability of the individual. The expulsive forces which are brought into play at the time of labor are probably not as efficient nor as effective as they were a few generations ago when women were compelled to exercise more freely. This coupled with the idea that a woman should labor for a certain prescribed number of hours and then to experience only a minimum amount of pain has induced physicians to hasten deliveries by one means or another.

In order to prevent uterine prolapse and its associated complications one must first understand the cause and method of production of such conditions. Undoubtedly congenital defects in the development of supporting structures such as fascia, ligaments, muscle and the inclination of the pelvic bone as well as malpositions of the various pelvic organs especially the uterus, are great factors in the production of prolapsus. If this were not true every woman subjected to one of the activating causes would be going about with a descensus of one or all of the pelvic organs.

Given an individual with a defective pelvic anatomy childbirth may be the link in the chain which eventually results in a prolapsed uterus. A precipitate labor or one hastened by the administration of pituitary extract may so loosen the attachments of the bladder, rectum or uterus that they will descend in the path of least resistance. Again a forceps delivery, especially if performed through a partially dilated cervix, or any difficult operative maneuver may strip and tear the fascia, ligaments and muscle to the extent that only a most thorough reconstructive operation will later support the pelvic organs. In order to prevent such a thing from happening it has been our custom in most primiparous labors and operative deliveries to perform a medio-lateral episiotomy before the presenting part has extensively stretched the perineum. It is doubly important to perform this prophylactic operation during a protracted second stage of labor especially where the bladder is being rolled off of its anterior attachments or where the pubic arch and the correspondingly contracted bisischial diameter forces the head through the soft parts. Furthermore the operation directs any continuation of the incision by tearing to the right or left of the rectum thereby preventing a third degree laceration. It is an accepted fact that a clean cut wound is more satisfactory to repair and that it heals more rapidly and accurately than one the result of a tear. As a result of following this line of reasoning my associate, Dr. Davis, and I have performed 294 episiotomies during the last 500 deliveries per vaginam. Fifty-three per cent of normal labors were assisted by this operation while sixty-three per cent of operative deliveries were preceded by a medio-lateral incision of the perineum. The feasibility of this procedure has been definitely proven when six weeks post-partum one finds the soft parts healed to the extent that they resemble those of a multiparous woman.

All lacerations of the soft parts should be dis-

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covered and immediately repaired. Frequently submucous lacerations of the muscle and fascia occur without a break in the skin or mucous membrane. Recently a semi-circular mattress suture has been satisfactorily used in this type of tear and also in old relaxations of the posterior vaginal wall.

A common complication of labor and one that is conducive to cystocele and prolapsus is a full bladder. There is nothing less compressible than a bag of water. It is therefore imperative that the patient empties the bladder frequently and completely or else that the urine be withdrawn by means of a catheter at regular intervals.

There are a number of steps in the evolution of a condition such as a prolapsed uterus. It is usually preceded by retroversion of the uterus, then beginning descensus with elongation and hypertrophy of the cervix. This is frequently associated with a cystocele or rectocele or both and then appearance of the cervix outside of the vagina and if not remedied a complete prolapsus of the uterus and occasionally a herniation of the posterior cul de sac may result.

WATKIN'S TRANSPOSITION

In a beginning prolapsus the situation can usually be satisfactorily remedied by a proper operation on the cervix, pleating or overlapping of the bladder fascia with advancement if necessary of the bladder on to the lower segment of the uterus, a colpoperineorrhaphy, an anterior subfascial shortening (modified Gilliam) of the round ligaments and if necessary shortening of the sacro-uterine ligaments (Bovee technic). When, however, the beginning prolapsus is associated with a large cystocele and likewise in the majority of cases of second degree descensus of the uterus the operation of choice is one first described by the late Thomas J. Watkins. It consists in transposing the fundus of the uterus between the bladder and anterior vaginal wall. The uterus acts as a very efficient plug for the herniated bladder. This operation is then followed by a very thorough and extensive repair of the posterior vaginal wall and perineum. When the cervix is elongated, hypertrophied or ulcerated it should be amputated before the sutures fixing the anteflexed uterus to the anterior vaginal wall are tied.

A study of 225 patients on whom the Watkins interposition or transposition operation had been performed showed that 90 per cent of the patients obtained both a functional as well as a reconstructive cure. A few had a recurrent cystocele or rectocele easily remedied by a plastic operation. There were seven patients who did not derive any benefit from their operation. Recurrence of a complete prolapsus followed extreme exertion in three instances while in the case of two others the uterus returned to its position at the introitus within three months following the operative correction. Two of the uteri interposed were atrophic and therefore too small to act as an efficient tamponade. Post-operative infection did not seem to be a factor in accounting for the recurrence for the convalescence in five of this group was afebrile.

The convalescence of patients who have had the transposition operation done can be made much more comfortable by routine catheterization. Withdrawal of the urine until the residual following spontaneous urination is less than one ounce and the daily instillation of ounce of 1-800 silver nitrate solution into the bladder following catheterization prevents post-operative cystitis and so improves the chances for an afebrile convalescence.

The unusually low morbidity of less than 1 per cent proves that this operation is a safe procedure. This is especially important when one considers that prolapse of the female generative organs so frequently occurs in middle aged and elderly women suffering from cardiovascular and renal disease. The well known fact that the pelvic peritoneum is much more resistant to infection than the abdominal peritoneum is another reason for considering this operation for the relief of cystocele and uterine prolapse.

Many other operations have been used to cure prolapsus. One of the most satisfactory for complete prolapsus especially where it is advisable to remove the uterus, is a combination of a vaginal panhysterectomy with overlapping of the bladder fascia and anchoring of the base of the bladder and vault of the vagina to the conjoined cardinal (round, broad and sacro-uterine) ligaments. With a well constructed posterior vaginal wall, Lynch, Phaneuf and others feel that 100 per cent relief of the prolapsus should be obtained. The fixation of the uterus or of the cervix following supravaginal hysterectomy to the fascia of the rectus abdominalis muscles without repair of the bladder fascia and proper support to the perineum gives

only temporary relief. If a firm pelvic floor has been built, the abdominal work is unnecessary and adds only to the mortality. The cystocele like any other hernia cannot be cured unless the fascia through which the rupture has occurred is properly restored or plugged by some fixed object.

CONCLUSION

The interposition operation is successful because it uses fixed structures for support. The uterus acts as a shelf to hold the bladder and is elevated in the pelvis by being tipped forward, its position being changed 180 degrees. The twist produced in the broad ligaments by the change in the position of the uterus, perceptibly shortens them, and is the chief factor in correcting the uterine prolapse, and finally as Miller has brought out the tendencies of the uterus and bladder are antagonistic to further prolapse as they work against each other to hold the correct position.

BIBLIOGRAPHY

Median Episiotomy, Fred E. Leavitt, Journal Lancet, 37:31, Jan. 15, 17.

Etiology and Treatment of Prolapse, Frank W. Lynch. Surgical Clinics of North America, April, 1922.

Uterine Prolapse, Cystocele and Rectocele, L. E. Phaneuf, Amer. Jour., Obst. & Gynec., 8:325-333, Sept., 1924.

Indications and Results of Interposition Operation in Treatment of Cystocele and Prolapse of Uterus, C. Jeff Miller, Surg. Gynec. & Obst., Vol. xxxviii, 38:348-351, March, 1924.

Enteroid Infection; A Study of Five Cases*

BY ARTHUR J. PATEK, M.D.
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A series of five patients with an unusual infectious disease recently came under my observation. While the symptoms that presented were, taken individually, not unusual disease manifestations, considered as a whole in conjunction with careful laboratory data, they were sufficiently atypical to have admitted of but a suggestive rather than a positive interpretation.

Of the five cases to be detailed, two were followed by me personally in hospitals, two were seen twice in counsel, and one once in counsel. The period during which these cases were observed was concurrent with an epidemic of what was then quite generally called "Intestinal Flu," the symptoms of which were characterized, in some, by a more or less acutely oncoming diarrhea, or a gastro-enteritis; in others by headache, backache, muscle pains and scalp sensitiveness, and a febrile reaction of short duration; the entire course lasting three or four, or at most double that number of days. There were those, however, that began with mild symptoms, and remained persistently mild over a period of weeks with but one outstanding symptom—viz., *fever*, and which were given no other designation than a protracted Flu, further defined as "intestinal" or otherwise. And there were still others whose onset was like those just mentioned, but which ran a febrile course of much greater intensity, typhoidal in type, and to which the diagnosis of typhoid fever was given; which diagnosis, even though not substantiated by sufficient clinical findings nor supported by adequate laboratory data, remained unchallenged.

The several cases that came to my notice were, in their early beginning, considered types of an infection which was then quite prevalent, and which, lacking a better qualification or more exact analysis, was styled "Flu," but of unusual obstinacy and severity. However, the continuance of symptoms beyond a point that could reasonably be interpreted as still consistent with that diagnosis, forced the conclusion that we were confronted with a different type of infection, possibly an atypical typhoid or paratyphoid, certainly a disease of the enteric group or family (parenteric or enteroid).

The infrequency of these enteroid diseases (typhoid and paratyphoid) in this city (Milwaukee) in the past decade is such that the younger generation of physicians has hardly had an opportunity to gather any degree of familiarity with them. The symptoms of typhoid fever are well known to those who can hark back to an experience of one or two decades. With paratyphoid, on the other hand, we are rather less familiar, therefore a hasty resumé may not be amiss. I am selecting paratyphoid because, clinically, it is representative of a group resembling typhoid and not because the cases to be reported were proven such.

*Presented before the Milwaukee Academy of Medicine.

There are two forms of paratyphoid: Alpha and Beta, although a third, Gamma, has also been described. Clinically the disease may differ but little from typhoid, and can be differentiated only bacteriologically. It is transmitted to man in the same manner as is typhoid, that is, through milk, water, carriers, oysters, etc.

Bacteriologically the paratyphoid bacillus occupies an intermediate position between b. typhosus and b. coli. There are certain differences in cultural characteristics, and the agglutination test is considered a reliable means of differentiation. "Agglutination by the macroscopic method of the microorganism obtained in dilution of 1:1000 of the serum is strongly suggestive of the bacillus. About ten per cent of all typhoids will give positive reactions to one or both paratyphoid types. Also, the serum of a paratyphoid a. patient may agglutinate B. typhosus and B. paratyphoid b. As B. paratyphoid a. is less readily agglutinated than b., a positive reaction in 1-40 to this microorg. has high diagnostic value. B. paratyphoid b. agglutinates very readily, and positive reactions are only of value when obtained in high dilution."[1]

The pathology of typhoid and paratyphoid does not differ greatly, intestinal findings being common to both, but not always present in paratyphoid.

CLINICAL DIFFERENTIATION

Clinically there may be no distinguishing features between the three diseases, typhoid, paratyphoid a. and paratyphoid b., although the a. variety more closely resembles typhoid as it also does bacteriologically. Certain differences may be noted: the onset of paratyphoid is usually more rapid; vomiting and diarrhea may be present; chill may usher in symptoms; abdominal pain is prominent; herpes is more common—rare in typhoid. The fever rises rapidly, reaching its acme in 24, 48 or 72 hours; duration varies from two to six or more weeks, frequently falling by quick lysis. The pulse is relatively slow, as in typhoid. Typical rose spots are found in about sixty per cent of cases. Spleen is enlarged. Sweating is frequent. Delirium is less frequent. Leukopenia as in typhoid. Complications are relatively less frequent because of the milder character of the infection and for the same reason the mortality is relatively lower. Relapses may occur.

Thus it is evident that clinical differentiation between the two diseases is difficult and may be impossible, and many cases and many epidemics of paratyphoid have doubtless been wrongly styled typhoid, because of inaccurate cultural and agglutination data, the only known means of positive differentiation.

CASE No. 1—Mrs. S.—act. 34.

On the evening of Dec. 20th, 1924, patient was suddenly taken with a severe chill, backache and fever. On the following day her temperature was 103°; she complained of severe headache, scalp tenderness, and of intense backache. During the entire first week these lumbar pains were of extreme intensity. The temperature remained persistently high (105° plus) with only slight morning remissions. During the first few days there were daily chills. On the fifth day diarrhea set in, and this continued about 5 weeks. At the end of the first week she developed marked abdominal tenderness in both flanks, with but little distension. The further course of the disease, briefly, was as follows:

Scalp tenderness—very exquisite for two weeks; this symptom disappeared but returned during a relapse six weeks later. Diarrhea and abdominal distress and tenderness, six weeks. Vomiting, two weeks. Delirium, several days. Spleen not palpable and never determined to be enlarged; nine days after onset typical typhoid roseola, appearing in crops, later in great profusion on trunk and abdomen, remaining until after defervescence. Evening temperature ranged between 103 and 105 plus, with a diurnal variation of 1½ to 2 degrees; pulse 100-110; resp. 20-32. The first run of fever lasted four weeks, the temperature dropping by lysis; then followed a remission of one week, and a secondary irregular course of two weeks more. Total illness, two months.

The outstanding symptoms were:

The sudden onset with chill and high fever; diffuse muscle, especially lumbar, pain and scalp tenderness; acute gastro-intestinal symptoms; slow pulse; rose spots and no discoverable enlarged spleen.

The laboratory findings are interesting:

Urine: Negative, save for a trace of albumen and a few red and white blood cells.

Blood: R. B. C., 3,750,000; H. 60%.

W. B. C.	8th day	14th day	20th day	42nd day
Leucocytes	8400	4780	4250	6000
Neutroph.	76.5	74	64	55
S. L.	9	7	8	1.3
L. L.	9.5	13	14	15
Tr.	2.5	5	2.5	9
E.	0.5		0.5	
L. Mono.	2	1	0.5	7.5
Platelets	Sl. incr.	Sl. incr.	Sl. decr.	Incr.

Blood Culture: Made on 8th day—negative.

Stool: Culture negative for typhoid on 10th and 13th days.

Widal Agglutination Tests: Dec. 29th (9th day): Negative, no clumping with B. Typhoid or Paratyphoid in dil. 1:20, 1:40.

Jan. 5th: Clumping in 1:40 with Typhoid; sl. motility left, few free organisms.

Jan 8th: 4 strains of typhoid bacilli used: Michael Reese H. Strain; Health Dept. Strain, no agglutination; Washington Strain, some clumping.

Jan. 26th: Negative—for typhoid micro. and macroscopically.

Feb. 5th: *B. Typhoid*: moderate amount agglutination in dilutions 1-20, 1-40, 1-60; many free forms; moderate amount motility.

B. Paratyphosus a: No agglutination, practically no loss of motility in dil. 1-20, 1-40, 1-60.

B. Paratyphosus b: Moderate amount agglutination in dil. 1-20, 1-40, 1-60; some free forms, some motility. Results were more nearly positive with B. Paratyphoid b than with B. Typhoid or B. Paratyphoid a. (These tests were made by the Columbia Hospital Laboratory, as were some of those in the succeeding cases, and I wish here to express my thanks for these courtesies.)

CASE No. 2—A. K.—aet. 40.

Onset insidious, with malaise, moderate and intermittent diarrhea, temp. 100-101, increasing weakness; general bodily aches and pain, especially of lower limbs; headache and pain in eyeballs; acute sensitiveness of scalp, particularly on left side, also superficial hypersensitiveness of axillae and entire back.

After first week patient was removed to the Milwaukee Hospital. Briefly enumerated his symptoms were as follows:

Fever: Continuously high (102-105) for six weeks, with a diurnal variation of 2-2½ degrees, dropping by lysis in the seventh week.

Pulse: 80-100; once only 108.

Heart: Negative at all times; pulse once noted as dicrotic.

Lungs: Negative at all times.

Abdomen: No discomfort, no tympanites, slight abdominal distress once complained of; constipated during greater part of illness.

On 17th day enlargement of spleen was noted, but this persisted only four days, and was at no time marked.

Eruptions: On tenth day a small crop of typical rose spots was found on abdomen and back; eruption still present on 22nd day.

Laboratory findings:

Urine: Occasional trace of albumen, few W. B. C., and R. B. C.

Blood Culture: Taken on 12th day; negative after three days.

Blood counts:

R. B. C. 4,208,000; B. 75%.

W. B. C.	Dec. 28th (8th day)	Jan. 3rd	Jan. 12th	Jan. 27th
Leucocytes	5050	6856	5200	6150
Poly.				
Neutroph	74	76	68.5	61.5
E.	0	0	0	0.5
B.	0	0	0.5	0.5
L. L.	9	19	36	35
S. L.	15	0	0	0
Tr.	2	4.5	5	2.5

Widal: Jan. 23rd, no agglutination—Paratyphoid a and b.

Jan. 25th, no agglutination for B. Typhosus in 1 hour.

Jan. 27th, macroscopic Widal neg. for B. Typhoid. Micro.: Moderate amount of agglutination in dil. 1-40 with some free forms and moderate amount of motility. Suspicious of typhoid fever, though result would not be called a positive test.

Feb. 25th, microscopic: Typhoid, negative in dilutions 1-20 to 1-80; paratyphoid a, negative in dilutions 1-20 to 1-80; paratyphoid b, sl. amount of agglutination, slight cessation of motility in dil. 1-20. (Slight amount of agglutination in dil. 1-40. Much motility.) Macroscopic: Typhoid, negative in dilutions 1-10 to 1-640; paratyphoid a, negative in dilutions 1-10 to 1-640; paratyphoid b, positive in dilutions 1-10 to 1-160, negative in dilutions 1-320 to 1-640. Indicates a very slightly positive test for paratyphoid.

CASE No. 3—Mrs. T.—Seen once in counsel.

Symptoms began acutely; headache, backache, pain in limbs and throughout body; slight chilliness; temp. 103.2 on third day; no gastro-intestinal symptoms; bloody expectoration in third week; highest temperature 103.2—reached on third day; duration four weeks; defervescence by crisis.

During entire illness pulse was relatively slow—90-100; spleen not enlarged, no eruption, no mental symptoms.

Blood findings:

W. B. C. 5100; Poly. 65%; Lymph. (L. & S.) 29.

Widal Test (12th day): Some clumping but many free bacteria; blood culture negative; paratyphoid agglutination not made.

CASE No. 4—Mrs. V. E.—Seen twice in counsel.

Onset sudden, with severe chill and pain in back; rise of temperature rapid—highest 103.4; no gastro-intest. or respiratory symptoms; total duration five weeks—including one week's interval of normal temperature, followed by a sudden relapse; pulse slow; spleen not enlarged; no eruption; no mental symptoms.

Laboratory data: W. B. C. 6,750; Poly. 67%; L. 32%.

Widal: Partial agglutination with typhoid, negative paratyphoid.

Blood culture negative.

CASE No. 5—S. K. W.—act. 50. Seen twice in counsel.

Symptoms began with fatigue, backache and headache; on third day temperature was 102, pulse 124; on sixth day temperature 103.8. Suspicious basal lung findings which later disappeared. During a period of over three weeks temperature ranged between 103 and 104.8, with a max. pulse rate of 95.

Other symptoms were: Marked abdominal distension, some tenderness, diarrhea throughout; spleen not enlarged; typical roseola—not numerous though definite. Delirium and general depression very marked.

Widal Test: On tenth day, partial agglutination for typhoid, but incomplete loss of motility; reported as suspicious, but not diagnostic.

No paratyphoid test made.

Blood exam.: On tenth day, W. B. C. 6,400; a second leucocyte count (Jan. 13th): 3600; 64% polys.; L.L. 7; S.L. 16.5; E. 0.5; M. 2; Tr. 10.

While these findings are very indefinite and not conclusive, the incomplete typhoid agglutination and the rapid onset, incline me to the opinion that here, too, we were dealing, not with a proven typhoid, but with a disease that closely resembled the others described—in all probability an infection of the same unproven etiology.

In grouping these five cases, two with quite complete and three with rather fragmentary data, in one class, I hold myself guilty of putting the proven with the unproven, i. e., insufficiently studied. But, it must be remembered that all these were seen concurrently; that there was raging at the time an epidemic which, lacking a more satisfactory name, was called "Intestinal Flu"; that in their earlier symptoms these five resembled the type that proved in so many instances merely short-lived infections of some unknown but not unnamed disease; and that several symptoms were found common to all, viz:

Fever—Suggestive of the typhoid type, with large diurnal variations in three.

Pulse—Slow in all.

Roseola—Present in three.

Acute Abdominal Symptoms—In three.

Acute Onset—In four.

White Blood Count—Low in all, with normal or low polynuclears.

Widal—Three slightly positive for typhoid; two slightly positive for paratyphoid b.; none definitely positive for either.

These data are sufficient, in my opinion, to justify placing the reported five cases under one heading. That these cases presented many difficulties in diagnosis, is obvious. In reviewing them, however, one must grant that errors were committed, errors which may be laid more particularly at the doors of the clinicians. Because of the unusualness of these enteric infections in this community, we are too prone to limit our requests for laboratory assistance to certain definite inquiries. In the instances here cited, few paratyphoid agglutination tests were called for, the Widal reaction for typhoid only having been generally borne in mind. Not only this, but it was forgotten that a single agglutination test during one stage of an illness is of insufficient value and not at all conclusive. On the laboratory side it must not be forgotten that the various agglutination tests, to be accurate, require laborious observation with various dilutions, and that, unless this be done, conclusions and diagnoses cannot be properly drawn. The inconvenience and expense of elaborate laboratory tests in home-treated cases is, of course, to be recognized; this, however, should not lessen our zeal in ferreting out difficult problems.

CONCLUSIONS

The five cases here recorded are but a fraction of the number that must have actually existed in Milwaukee during the present season, and their study and reporting will, I believe, add materially to the sum total of the experiences of others of similar character. (I have myself seen several others but not under conditions favoring further contact.) The conclusion is therefore inescapable that this city has harbored a rather widespread epidemic; that unquestionably this epidemic has included many cases that, lacking a more exact interpretation, were rightly or wrongly (in many cases the latter) called Intestinal Flu; that, on the other hand, there were a large number which, because of their clinical manifestations and laboratory findings, could not be classified as such, and which, while definitely not typhoid, more nearly suggested a paratyphoid, or another kindred disease due to a bacterium intimately resembling it. It seems proper to label this type of intestinal infection with the non-committal designation "Enteroid."

BIBLIOGRAPHY

1. J. L. Miller, Oxford Medicine.

TAYLOR ELECTED CHAIRMAN

Dr. J. Gurney Taylor, Milwaukee, was elected chairman of the Inter-Medical Fraternity Conference at its biennial meeting held in Chicago on May 30th. At this conference all but two of the organized medical fraternities were represented. Dr. Stuart Graves, 1361 S. 4th St., Louisville, Ky., was elected secretary-treasurer.

The executive committee is composed of the chairman, secretary-treasurer, and Dr. David E. W. Wenstrand, Milwaukee, Dr. Ernest E. Irons, Chicago, and Dr. Wm. A. Mann, Jr., Wilmette, Ill.

Dr. Taylor is president of the Wisconsin State Board of Medical Examiners and has held several offices in the State Medical Society. Dr. Wenstrand is secretary of the Milwaukee Academy of Medicine.

Pleomorphism of Secondary Invaders in Urethral Infection Simulating the Gonococcus

BY CLARENCE C. SAELHOF, M.D.
John McCormick Institute for Infectious Diseases
Chicago

Bacteriologists are well acquainted with the apparent disregard of the staphylococcus and streptococcus to the established laws of morphology. Urologists are most especially interested in this behavior within the genito-urinary tract where they are frequently associated, either primarily or secondarily, with the gonococcus. In these instances, morphotic deviation from the basic type is confusing; the relative paucity of literature applicable to this atypical morphosis is evident.

All diplococci observed in urethral discharges, either acute or chronic, primary or secondary, should be regarded as the gonococcus until proven otherwise. Although this is an excellent precaution until exact etiology is ascertained, it is often contrary to reason. One feels that such organisms may not be gonococci, because the indications of infection, time interval and clinical symptoms point to the contrary. It is a fact that a vast majority of acute pyogenic infections within the urethra are caused by the gonococcus and, once established, may persist for years. That it is not often seen after three years is common experience and, under adequate treatment, disappears in much less time. From the standpoint of transmission, it is conceded that the chronic stage is most dangerous; still, countless numbers harboring a lingering, catarrhal urethritis do not infect sexual partners. Digesting this knowledge, conclusion is drawn that secondary infection often outlives the primary, since we cannot reasonably conceive of the gonococcus living in the human urethra attenuated to such degree that it will not gain virulence and new life when transplanted upon fresh human culture medium.

The first several inches of the outer urethra is the normal habitat of multitudes of bacterial parasites which may easily become pathogenic, if suitable conditions ensue. Limiting the discussion to that form of urethritis initiated by the gonococcus, while this organism still lives, mixed infection may result, which may persist for an indefinite time.

The phase of mixed complicity with the gonococcus is much undervalued. In many instances, from the very beginning, the pure gonorrheal type of disease quickly becomes a mixed infection. From their inception, discharges are observed which vary noticeably in color. Some are white, some yellow, some lemon and occasionally greenish. That different strains of the gonococcus should possess this chromogenic variation is questionable and still unproven. Culture of different colored discharges show other organisms present. Logically, one may suspect that from earliest urethral activity the gonococcus allies itself with some organism which possesses chromogenic peculiarities when growing on a natural medium.

In Table I is given the average day of secondary invasion from alleged initial discharge in 80 cases, obtained by smear and culture preparation.

TABLE I[1]

Day from initial discharge	Total number of cases	Gonococcus[2]	Number of cases showing Staphylococcus albus	Staphylococcus aureus	Staphylococcus citreus	Bacillus pyocyaneus	Bacillus coli
1	1	1	1	0	0	0	0
2	9	9	8	1	0	0	0
3	7	7	7	1	0	0	0
4	6	6	6	1	0	0	0
5	18	18	16	0	1	1	0
6	21	21	21	0	0	0	0
7	5	5	5	0	0	0	0
8	9	9	8	1	0	0	0
9	2	2	2	0	0	0	0
10	0	0	0	0	0	0	0
11	1	1	0	1	0	0	0
12	1	1	0	0	0	0	1

[1]Isolation on dibasic acid sodium phosphate agar.

[2]One or more pair of gram negative intracellular diplococci.

These cases were obtained routinely as applying for treatment and are tabulated as number of cases showing approximate date of secondary invasion: the largest number showed secondary invasion 6 days after alleged initial discharge, the next group after 5 days.

Whether or not the gonococcus is eliminated by adequate treatment, or falls a victim to the overpowering onslaughts of innumerable secondary invaders, is undetermined. However, literature

at present fails to reveal any phenomenon simulating d'Herelle's bacteriophage in lysis or dissolution of the gonococcus. There are many instances of urethral inflammation which begin as a gonorrhea and after treatment, do not show the gonococcus, but do show diplococci morphologically resembling the gonococcus. One is then confronted with secondary infection kept alive by organisms whose morphotic deviation from basic type is a source of diagnostic uncertainty. Doubtless, this condition has been greatly responsible for much of the hesitancy in prognosing the future of the gonorrheic.

The two common offenders in pyogenic infections of the urethra and adnexa are the gonococcus and staphylococcus. There are other strains of organisms causative of or associated with urethral infections, but they are not consistent malfactors of the urogenital tract. On the basis of frequency of occurrence and similarity in characteristics, other cocci are not so apt to be confused with the gonococcus as the staphylococcus. While the micrococcus catarrhalis is a true Gram negative diplococcus and may be intracellular, it thrives luxuriantly upon any ordinary culture medium and hence affords easy differentiation from the gonococcus. Staphylococci may be found everywhere; they readily become accessories to urogenital infection. From the diagnostic and prognostic standpoint, they would not be so troublesome to the urologist if they were consistently true cocci. They may be inconstant: oval in shape or grouped together in pairs and markedly diplococcic in outline. They are usually Gram positive but, in the presence of marked albumin or other adverse condition to the Gram stain, may be relatively Gram negative. In these inconstant respects, they simulate the gonococcus and, should basic aniline stains be the sole criterion of diagnosis, they will inevitably be mistaken for them.

Pleomorphism means the property of having many forms; that an individual variety of bacteria may appear to possess more than one shape under different conditions of growth. For example, the staphylococcus may be both round and diploid and retain its basic classification as a coccus. Recent studies in the hydrogen ion concentration relative to bacterial life (T. S. Falk) show that organisms are easily influenced by variation of the conditions surrounding their artificial growth and that such changes do not materially alter pathogenicity.

Changes in form of individual strains are not always the result of growth environment. Hiss and Zinnser[1] state that certain organisms, while thriving under apparently ideal and normal cultural conditions, will present atypical forms. However, these variants do not depart from parent type; they may show unnatural clubbing, beading or staining properties, but cannot be propagated into a distinct type which differs from the parent. Naegeli applied the term involution. Under certain conditions there appeared in cultures, particularly bacilli, irregular and distorted organisms. His opinion was that they were produced by imperfect growth, due to inhibitory influences of some type.

These forms are readily demonstrated in human urethral discharges. Whether such changes are due to some natural or artificial phenomenon is immaterial from the standpoint of diagnosis, since culture will always establish the basic identity of the strain. The vital point to bear in mind is that these organisms are not constant in form and cannot change much without encroaching on the characteristics of organisms of closely allied strains; they may, by cursory examination with basic aniline stains, be easily confused with gonococci. It is really striking to observe how closely they may simulate the gonococcus, not only in shape but in staining reaction and apparent intracellular position; however, when transferred to an artificial medium having ideal cultural conditions, will reassume the morphological characteristics of the basic strain.

SUMMARY

In a routine series of 80 cases of gonorrhea, smear and cultural preparations show that secondary invasion of the urethral tract is most likely to occur about 6 days following the alleged initial discharge. The most common offender is the staphylococcus albus.

Pleomorphism or involution of the secondary invaders is observed simulating the gonococcus. All Gram negative or relatively Gram negative diplococci should be considered gonococci until proven otherwise by cultural methods: reversion of pleomorphic organisms to basic strain is easily obtained on ideal artificial culture medium.

BIBLIOGRAPHY

1. A Textbook of Bacteriology: Hiss and Zinnser. Russell, 1922, 5th Ed., p. 20.

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

Methods Pursued By Various States in the Control of Communicable Diseases

During the annual meeting of the State and Provincial Health Officers of North America, the following report was presented by Dr. C. A. Harper, Madison, chairman of the committee on communicable diseases. The report shows the results of a questionnaire sent to the various state health officers upon methods used in the handling of certain of the communicable diseases in which recent advances in treatment and control have been suggested. The replies numbered 37, which are summarized as follows:

The committee upon communicable diseases presents to you the results of a questionnaire sent to the various state and provincial health officers for ascertaining the current opinion and practice upon certain communicable diseases. The first four questions relate to scarlet fever biologicals.

QUESTION 1. Do you recommend the use of scarlet fever antitoxin in all cases of scarlet fever?

ANSWER. "Yes," 24; "No," 11; "under advisement," 2.

Those answering in the affirmative further qualified as follows: In toxic or severe cases, 10; in both mild and severe cases, 1.

QUESTION 2. Do you recommend scarlet fever antitoxin for passive prophylaxis? If so, name the indications.

ANSWER. "Yes," 13; "No," 16; non-committal, 8.

Among those answering "yes," 4 were for limited use; 2 recommended it but were doubtful of results; and one further qualified by mentioning the positive Dick test.

QUESTION 3. Do you recommend scarlet fever toxin for active prophylaxis? If so, under what circumstances do you consider it advisable?

ANSWER. "Yes," 15; "No," 16; non-committal, 6.

Among the affirmative answers were the following qualifications: Routine in school and preschool, 1; in institutions, picked schools, nurses, etc., 3; to children under 12 years old, 1; where Dick test positive, 1; to institutions, etc., in doses of 500, 5,000, 30,000, 1; routine endemic and epidemic, 1; yes, but not during epidemics, 1; yes, but too early for general use.

QUESTION 4. Do you advocate the Dick test for diagnostic purposes?

ANSWER. "Yes," 24; "No," 11; non-committal, 2.

Among the affirmatives five indicated under some circumstances and two stated under certain circumstances but explained its inaccuracies.

Comment. The majority of the states endorse scarlet fever antitoxin for treatment and it apparently can be looked forward to as a standard recommendation. The Dick test for diagnosis also seems to be advocated by the majority although the particulars and circumstances were not called for in the questionnaire. The reports upon the prophylactic scarlet fever biologicals denote conservatism in general, as the majority were on the negative or non-committal side. Those replying positively advocated selected cases or groups. Doubtless those replying negatively are awaiting detailed reports or practical experiences and the next year or two is likely to give us more definite information. It is interesting to know the reaction of the various state boards of health upon so new a biological which promises relief from a prevalent disease. The reports indicate that the various health officers are alive to developments. We may add that we are greatly indebted to those scientists who have made possible a better control of a disease noted for its disabling complications. Those of us who reside in the north are particularly interested as we bear the burden of its prevalence.

QUESTION 5. Do you recommend diphtheria toxin-antitoxin as a routine to pre-school and school children without a prior Schick?

ANSWER. "Yes," 34; "No," 3.

Among those answering "yes," 4 specified in preschool only; 1 specified up to 10 years; 1 specified up to 12 years; 1 after consulting family physician.

In practical application toxin-antitoxin now seems to be advised in the early years of life with-

out a prior Schick in nearly all states of the union. It can be looked upon as a standard practice.

QUESTION 6. Do you advise the Schick test after toxin-antitoxin when given to children routinely as part of the program?

ANSWER. "Yes," 28; "No," 7.

Among those answering "yes," were the following qualifications: Should be tested every year, 1; in six months, 4; not emphasizing but think good practice, 2; when health officer has time, 2; only to random samples to test general immunity, 1.

Evidently it is the common practice now to recommend the Schick test after toxin-antitoxin. How fully it is followed out in actual practice is not evidenced by the questionnaire.

QUESTION 7. Do you advocate pertussis vaccine in cases of exposure?

ANSWER. "Yes," 8; "No," 18; non-committal, 11.

The qualifications among those replying "yes," were: In heavy doses, 2; when advice is requested, 1.

The doubt cast upon pertussis vaccine by some physicians has been sufficient to discredit it in the minds of many. Its benefits have been proclaimed by others. The answers to this questionnaire again show that conservatism prevails and the negative side is in the majority. With two exceptions no mention was made to the freshly prepared vaccine of high potency of late recommended. When the question was framed the intention was to elicit some opinion upon this recent modification of pertussis vaccine but it is apparently not yet in wide use and opinions upon it are not forthcoming.

QUESTION 8. Was there an increased prevalence in typhoid fever in your state in 1925? To what do you attribute the increase?

ANSWER. "Yes," 20; "No," 16; not answered, 1.

The qualifications to those answering "yes" were as follows:

To tourists and campers, 4.
Small specific outbreaks, 3.
Drought, 4.
Smaller number of immunes since World War, 1.
Oyster outbreak, 1.
General unsanitary conditions, 6.
Lack of follow-up work, 1.

The reports of the U. S. Public Health Service during 1925 indicated a considerable increase in the number of cases of typhoid fever over the year 1924. No common cause of this increase applicable over a number of states is evidenced by the opinions given in this report. The increase in tourist traffic mentioned in some of the reports is recommendation for providing sanitary camp grounds and safe water supplies for tourists and campers. In an age of tourist travel we are called upon to meet the conditions imposed by this sort of travel. The principal point to learn in connection with typhoid is that it is not a dead and departed affliction, but one whose causative organism is ever present in the population awaiting the chance to renew its former prevalence when lack of sanitation allows it to prevail.

QUESTION 9. What form of rabies treatment do you recommend for preventive treatment in a person bitten by a rabid animal?

ANSWER. Pasteur treatment, 4; Pasteur treatment with modifications, 1; Semple, 1; Cumming, 3; Mulford, 2; New York City, 2; Squibb & Company, 1; Harris, 3; Fourteen Day Own Laboratory, 1; 21 treatments, 3; 14 day treatment, 1; not finished, 1; anyone licensed by the U. S. P. H. S., 7; not answered, 7.

Judging from the questionnaire we take it for granted that any preparation licensed by the U. S. Public Health Service has sufficient merit to be administered. If there are valid preferences to any preparation we trust that future experience will demonstrate the merit in it.

QUESTION 10. Do you advocate antirabic vaccine for animals in the control of rabies? If so, do you modify the usual method of control?

ANSWER. "Yes," 28; "No," 8; not answered, 1.

To the second part of the question upon modification of the usual methods of control the answers were: "Yes," 8; "No," 14; and others not specified. Apparently the use of rabies vaccine in dogs has become standard treatment. Particulars upon its use in conjunction with the older methods do not appear to be well worked out yet. There have been some reports that the strain of virus in all outbreaks is not identical and that some dogs given this vaccine have developed rabies. Favorable reports first rested upon the Japanese experiences. More extensive reports in this country on results following the practical use are awaited. We trust that in those states in which it is used along, it will be found efficient and be-

lieve it worthy of trial for those disposed to do so. The double protection of vaccine and old methods of muzzling and tying by a leash should give ample protection to the public.

You will pardon our calling attention once more to the divergencies of answers brought forth by this questionnaire. On the toxin-antitoxin and Schick test requirements we seem to have approached somewhere near together during the past year. Our differences on the other questions involved are presumably due in large measure to the recent innovation of these biological agents and more certain information upon indications and results will doubtless bring us nearer together as time goes by. We have many thanks for the extensive replies received from this questionnaire.

THE JOURNAL CLINIC

A Case of Pellagra Occurring in Wisconsin*

BY R. L. McINTOSH, M.D., AND W. P. BLOUNT, M.D.
Madison

The occurrence of a case of pellagra in Wisconsin is a rare event and one which always stimulates interest, especially from the standpoint of preventive medicine. The case described here, while typical in many respects, well illustrates how these occasional sporadic cases may appear in places where pellagra has never been seen before. Such cases have been more or less of an obstacle to the proponents of the theory that pellagra is an infectious disease although not by any means excluding that view. Likewise the advocates of the metabolic theory regard these cases as being excellent examples of how metabolic changes alone may produce the disease. Because the case at hand illustrates many of the points made by each of the two opposing factions and because these cases are the type with which we are concerned in our state, it appeared that a brief summary of pellagra would be appropriate.

From the earliest writings on the subject down to very recent years there has always been a feeling that the ingestion of corn was in some way responsible for the disease. At first the corn itself was thought to be the cause, later it was suggested that the moulds or bacteria present on spoiled corn were the real cause. Variants of the maize theory appeared from time to time, the last one being the view that the removal of the anti-neuritic element of corn in the process of modern milling is the thing which renders corn liable. While such removal is to be condemned on general principles, there is no proof that pellagra is due to lack of this element.

It seems now that the consumption of corn or corn products is not a requisite to the production of pellagra, that none of the several toxic substances which have been isolated from corn are proven causes of the disease, and lastly, that pellagra is not limited to communities where corn is a major article of food. Moreover it is said to occur in persons who do not eat cereal in any form. It would seem, therefore, that we must give up the maize theory and look elsewhere for the cause. No other single article of food has been suspected and no combination of foods have been provocative of the disease.

There is much evidence in favor of the view that pellagra is a metabolic disorder. That these patients usually have a faulty, unbalanced diet is agreed, but the exact factors which make such a diet a specific pellagra producing diet are not known. The view that it is due to a deficiency of amino acids in the diet or to an imperfect utilization of them by the body after ingestion is not proven, but has many supporters. There are several other factors in addition to the actual imperfect utilization which play a part in the production of the disease according to this view. Any gastro-intestinal disfunction, such as diarrhea, for example, which might prevent or inhibit proper utilization of proteins might well be enough to bring about the symptoms in some cases that might have managed to escape if the added burden of a diarrhea had not been present. Likewise severe muscular exertion in a person on such a diet would cause the disease to appear, whereas if such a patient remained at rest, there would be a large enough protein balance to prevent pellagra. These

*From Clinic of Dr. O. H. Foerster, State of Wisconsin General Hospital.

metabolic theories are, of course, compatible with the fact that the disease is essentially one of workers and of poverty.

Advocates of the infectious theory believe that the poor hygienic conditions prevailing in communities where poor working classes live are conducive to pellagra and that the institution of such improvements as modern sewerage systems is followed by a decrease in the number of cases. Extensive epidemiological studies both here and abroad have stressed the apparent correlation between the incidence of the disease and the topographical and sociological aspects of pellagrous communities. A large percentage of cases in the southern states have been previously exposed to the disease but it is generally thought that the disease is not directly transmissible. Thus far no organism has been found that will produce pellagra and the theories of its being an insect borne or water borne disease have yet to be established.

The history given by our patient is more suggestive of its being a metabolic disorder, but she may have been exposed to the disease in 1915 when she visited in Kentucky. In that event the latent period would have been about ten years.

CASE REPORT

D. I., a white female, 37 years of age, entered the Wisconsin General Hospital on January 27, 1926, with the chief complaint of "weakness." She had been well until March, 1925, when she had an attack of weakness, diarrhea and slight soreness of the mouth. This lasted no longer than three weeks after which she was entirely well until the latter part of September, 1925, when there was a reappearance and rapid increase in severity of the above symptoms. In addition she had violent abdominal cramps, bloody stools and marked prostration, and of her own accord, she described a "sunburn" on the face, neck, hands and exposed parts of the arms which appeared rather suddenly. She was rather surprised to observe such a reaction after having been exposed to the sun's rays all summer and in fact most of her life. The "sunburn" cleared up very slowly leaving the skin dark and scaly on the backs of the hands and on her neck after having gradually crept around and up the ulnar surface of the forearms in a linear fashion to the elbows where it faded out.

During this time the ingestion of food had been made difficult by the soreness of her mouth but this gradually abated and on admission she had no symptoms at all referable to her mouth. She did have an annoying hoarseness, which had persisted since the beginning of her illness.

The weakness, however, has increased during the past three months so that now she is not able to walk except with assistance. She has very little strength in either the upper or lower extremities.

The diarrhea has abated and now occurs only intermittently with periods of normal stools and rare periods of constipation. Except for the weakness, the patient feels that she is somewhat improved at time of entrance to hospital.

A systematic history of symptoms is negative except as follows: Frequent occipital headaches with vertigo, blurring with near and far vision, scotomata, sore throat, occasional slight hemoptysis, chills associated with the diarrhea, nocturia, slight burning on urination and the appearance of the menopause in the fall of 1925.

The past medical history is entirely negative.

The patient was born in Kentucky, where she lived until 1912. She moved to Wisconsin for eighteen months, and then back to Kentucky for a year. In 1915 she returned to Wisconsin, where she has done house work and gardening ever since. She was married in 1913. Her husband and three children are living and well, while the fourth pregnancy resulted in a stillbirth at eight months, in 1923. Her diet has consisted in the order mentioned by her, of milk, cabbage, potatoes, corn bread, very little meat, with bread and other articles of food occasionally. She has been living in a town of about 1,600 people as the wife of a government employee. Other than this the marital history is negative, and the family history entirely irrelevant. Social service history was not obtainable but it was learned that the patient was sent to the hospital by her husband and brother largely because of her mental deterioration. She had become an inveterate cigarette smoker, also.

Physical examination revealed a poorly nourished woman, who had the facies of one mentally under par. She was unable to walk even when using a cane and required additional help. The gait was very slow and shambling and there was very apparent spasticity.

Skin—On the face and neck down to the dress line the skin was of a brownish hue, the pigmentation being dotted here and there with small round or ovoid areas of apparently normally colored skin. Some of these areas contained even less than a normal amount of pigment. While the discolored area ended abruptly at the dressline it was not considered that a definite necklace of Casal was demonstrable. Aside from the pigmentation the skin was quite normal to inspection and palpation. On the hands and arms the pigmentation was strikingly symmetrical. From the backs of the hands two wide, brownish, scaly, infiltrated bands curved around to and up the ulnar side of the forearms to the elbows where they faded out. These bands were sharply demarcated from the normal hued skin as shown in Fig. 1. Above the elbows were two macular patches on each arm in symmetrical arrangement.

Head—There was lateral nystagmus to each side. The pupils were round and equal, but the discs were slightly shallow, with hazy outlines. There was a slight tremor of the tongue. It was not "bald" but normally rugate and protruded in the midline. The pharynx was slightly injected.

Neck—Negative, except for slight enlargement of the thyroid gland.

Chest—Emphysematous in type, with a funnel-like depression at the xiphosternal junction. The only positive finding was an occasional coarse moist rale.

Heart—The blood pressure was 108/78. The apex beat was not visible and the borders of the heart were within normal limits. There were no thrills or murmurs noted.

Abdomen—The abdominal wall was quite relaxed. The right kidney was palpable and mobile and the descending colon was definitely palpable and quite tender, otherwise the abdominal examination was negative.

Extremities—Were negative except for the skin lesions mentioned above.

Neurological—The reflexes on admission were:

	Right	Left
Biceps	++	++
Triceps	++	++
Long supinator	++	++
Patellar	+++	+++
Patellar clonus	0	0
Achilles	++++	++++
Ankle clonus	+	+
Babinski	+	+
Confirmatories	0	0

(Normal designated as +)

The muscle tone throughout the body was very poor. The grips in each hand were weak and when the patient attempted to walk her leg muscles could barely sustain her weight. Her Romberg was negative; there was no ataxia and her position sense, synergy and steriognosis were preserved.

The urine contained small amounts of indican on each

examination when first admitted to the hospital and there were occasional white blood cells and traces of albumin; otherwise the urine showed no abnormality.

On admission the blood showed a 70% Hemoglobin and 4,240,000 R. B. C., with a color index of 0.8. There were 11,200 W. B. C. and a differential count gave 65% neutrophiles, 2.4% eosinophiles, 1.2% basophiles, 24.6% small lymphocytes, 4.0% large lymphocytes and 2.4% large mononuclears.

The blood Wassermann was negative. The blood chemistry showed 88.5 sugar, 32.7 N. P. N. and 2.87 uric acid.

Gastric analysis showed a free acid of 15 and a combined acid of 10. The stools were negative for ova and parasites.

TREATMENT

The patient was immediately put on a diet in which milk, bean soup, fresh meats and fresh vegetables appeared in abundance. She was given no medication. The combination of rest and adequate diet proved to be quite enough to cause the rapid disappearance of all of her symptoms, physical and mental. The dermatitis cleared rapidly, her strength returned and her appetite was better, and she changed from a sullen, dull, careless person to one who is bright, cheerful and cooperative. She walks about quite normally without any assistance and with her sewing and reading does not seem to tire easily. Neurologically all her reflexes are normal and her gastro-intestinal distress has disappeared. After two months' treatment urinalysis was normal, and blood studies showed 9,400 W. B. C. and 4,650,000 R. B. C. with a normal differential count.

DISCUSSION

While it is true that early pellagra is periodic and most cases exhibit seasonal variations, it is felt that the rest and the high protein diet has been an entirely adequate treatment for this patient. Having reached this stage it might be well for her to continue this diet and also to take yeast in the future as a preventive measure in addition as suggested by Goldberger on the theory that once a pellagrin always a pellagrin and the suggestion that management of the diet alone is not sufficient to prevent remissions. It is also entirely possible that the sun's rays might, as she returns to her work this summer, activate any photodynamic substance she might have in the blood stream as an alimentary tract intoxication as suggested by Jobling. The acceptance of this idea does not exclude, we believe, the theory of imperfect utilization of proteins as the fundamental cause of pellagra.

CONCLUSIONS

While but one or two cases of pellagra occur in Wisconsin each year, one must always bear in mind its possibility when the triad of dermatitis, diarrhea, and dementia are present. The dermatitis is usually on the hands, arms and neck and is usually strikingly symmetrical. However, it may be atypical in that it occurs on covered parts of the body. Its extent and distribution have no direct relation to the severity of the disease and the entire skin surface must be inspected in any suspected case. The eruption of pellagra is probably the nearest approach to a pathognomonic symptom of that disease.

The gastro-intestinal symptoms are dyspepsia, anorexia, altered taste and a burning sore mouth and tongue. Later there are abdominal pains and periods of diarrhea. The persistent diarrhea is often a comparatively late sign and not infrequently occurs only as a terminal symptom. The reddened, superficially denuded tongue, termed a "bald" tongue, is likewise a comparatively late symptom although the tongue may be sore early in the disease.

Of the nervous symptoms, the weakness and lassitude are usually first and are progressive. Vague pains, vertigo, tremors, pressure tenderness, etc., follow and in a general way the neurological signs are those due to involvement of the pyramidal tract and posterior columns.

It is not necessary for such a patient to give a history of having lived in the south, nor is it essential that they give a history of having lived on a strikingly unusual diet, for example, the case given here. Their ideas regarding the adequate amounts of meat, milk, etc., which are found in a normal ration are usually quite wrong and are misleading. Our patient doubtless had a fair amount of protein foods but this, when combined with the prolonged muscular exertion, may have been enough to set up the entity we know as pellagra. These isolated sporadic cases occurring in the state of Wisconsin will never cease to be problems of interest to all until the question of etiology is settled.

INTRACUTANEOUS SALT SOLUTION TEST

The use of the intracutaneous salt solution test as a test of the efficiency of the circulation in the extremities is discussed by Milton B. Cohen, H. S. Appelbaum, and E. L. Hainsworth, Cleveland (Journal A. M. A., May 29, 1926). It is said to be a rapid and accurate method of determining tissue affinity for water. Sixty minutes or more is the normal disappearance time. In all conditions associated with localized anoxemia, the salt solution disappearance time is decreased. In cardiac disease with decompensation, the disappearance time is always twenty minutes or less in the edematous areas. If there is no decompensation, normal values are obtained. In cases with peripheral arterial disease, the disappearance time is always decreased in areas showing clinical involvement. From observations in thirty-five cases, it has been noticed that readings below ten minutes have been found only in tissues immediately above areas of gangrene. Readings between ten and twenty-five minutes are strongly suggestive of developing gangrene.

Cancer of the Stomach in a Man Aged Twenty-Four*

BY JEROME R. HEAD, M.D.
Chicago

It is generally considered that a person does not enter "the cancer age" until he has passed thirty years. That this is a part truth, the fallacy of which should be remembered by the diagnostician, is evidenced by the numerous reported instances of epithelial malignancy in much younger individuals. The following case of scirrhuscarcinoma of the stomach in a young man, aged 24, is presented because it emphasized this fact.

CASE REPORT

S. W. G. H. No. 146. Scirrhuscarcinoma of stomach in man aged 24 years. Exploration; death two weeks later from acute hemorrhage. (Entered 4-21-25; died 5-5-25.)

Mr. C. H., a male Chinese student of 24 years, first came to the University Student Health Department in February, 1925, complaining of pain in the epigastrium and of vomiting.

His family and past history were essentially negative.

He dated his present illness from six weeks before entrance at which time he first began to notice epigastric distress and pain coming on shortly after meals. From then until coming to the clinic the symptoms had grown steadily worse. He had vomited several times shortly after eating and had lost considerable weight. He was put upon a restricted diet and given alkaline powders. His complaints grew worse rather than better. At the end of two weeks he was sent to the student infirmary and gastro-intestinal x-rays taken. These showed a marked distortion of the stomach of the hour glass type and led to the diagnosis of ulcer of the stomach. He was then put upon a sippy diet but failed to improve. He was then seen in consultation by Dr. A S. Crawford, who advised operation.

This was performed on April 21, 1925.

OPERATION NOTES

Midline incision between umbilicus and ensiform.

Findings—Inoperable carcinoma of the stomach.

The carcinoma was an extensive lesion involving practically all of the lesser curvature and anterior wall, going down to the greater curvature, leaving an hour glass stomach, with the upper sac of not over one or two ounces capacity. No encroachment on the pylorus. There was extension of the new growth to the liver, upward to the mesentaric glands, downward to the mesentaric glands, and as far as the pelvis. The omentum was riddled with metastatic nodules. There was not room enough to do a gastro-enterotomy on the cardia. Some of the nodules were taken from the omentum for diagnosis. The wound was closed with silk double row for the peritoneum and fascia and reinforced by interrupted silk.

Prognosis—The patient will live but a few months.

Following the operation the patient grew steadily weaker. Vomiting became pronounced. He improved somewhat, but on May 5, 1925, two weeks after the operation, he suddenly grew faint, vomited a large amount of blood and died shortly afterwards.

AUTOPSY REPORT

Anatomical Diagnosis—Carcinoma of stomach with ulceration, hemorrhage and metastasis to regional lymph nodes. Healing surgical incision.

Abdominal Cavity—On opening the abdominal cavity the small intestine is found markedly distended and contains a large amount of partially digested reddish-black bloody material. On palpation and partial inspection the liver, spleen and kidneys appear normal.

Stomach—The stomach is somewhat distended in the proximal portion and about the middle of the greater curvature there is a marked constriction which gives a distinct "hour glass" effect. The transverse colon and the omentum are firmly adherent to the stomach in this region. The stomach is very firm in this area of constriction. The glands along the greater and lesser curvature are large, firm and on section appear grey and rather translucent. The lumen of the stomach in the region of the constriction is narrowed to about 3 cm. in diameter.

On opening the stomach the mucosal surface of the firm constricted area shows an oval ulcerated area 5 by 2 cm. The ulceration has proceeded to near perforation. The base of the ulcer shows two or three hemorrhagic spots. The wall of the stomach adjacent is thicker and much firmer than normal. About 2 cm. distal to the large ulcer there are two round, undermined ulcers of practically equal size which measure 1 cm. in diameter. In these areas of the stomach the wall is also firm and thickened.

The stomach contained a considerable amount of partially digested blood.

MICROSCOPICAL

Stomach—Extensive infiltration of wall with scirrhus carcinoma. Marked necrosis of mucosa and wall of stomach in places.

Omentum—Areas of acute and chronic inflammation. Areas of growth of scirrhus carcinoma.

Lymph Nodes—Extensive growth of scirrhus carcinoma.

Cancer of the stomach in young persons has been the subject of numerous case reports and statistical studies. In 2,038 cases Welch[2] found 2.8% and in 1,069 Kohler[2] found 2.3% under 30 years. In the 150 cases seen at the Johns Hopkins Hospital previous to 1900, 6 or 4% were under this age.[2] At that time Osler and McCrae were able to collect six instances of the condition occurring in children under ten years and thirteen instances

*From the Surgical Service of the State of Wisconsin General Hospital, Madison, Wis.

between 10 and 20 years. Of the former, four of the six are cited as doubtful. Of the other two, that reported by Cullingworth,[2] in which the diagnosis was verified by the microscope, occurred in an infant who died at the age of three weeks and who had symptoms dating from the 10th day of life. In 1915 Karl[4] reported a verified case in a boy of nine years. In 1924 Sullivan[4] collected 23 authentic cases in persons in the first two and one-half decades. The following table shows the age incidence in this series:

1 year	1
1- 5 years	0
5-10 years	2
10-15 years	6
15-20 years	9
20-25 years	5

In 1908 in a collected series of 7,000 cases Martin[3] found 0.08% occurring between the 10th and 20th years and 1.5% between the 20th and 30th. At this time Osler and McCrae[2] stated that they had found ten cases under 10 years. They estimated that of all cancer of the stomach about 2% is in persons under 30 years, and say "cases occurring during the first period (1-20 years) are clinical and pathological curiosities. Those of the latter period (20-30) are of more interest, since, though a small fraction of the total cases, they comprise a fairly constant percentage and show fairly uniform symptoms."

Clinically the disease in young persons is unusually acute, of remarkedly rapid progression and metastasizes early. Mathieu, in 19 cases, found the mean duration to be three months. The shortest was five weeks and the longest one year. Osler and McCrae noted the fact that death was usually from perforation or hemorrhage—outcomes consistent with the acute course.

The diagnosis is rarely made before operation or autopsy. The reason for this is doubtless to be found in the rarity of the condition and the failure to consider it.

CONCLUSION

1. A case is reported of scirrhuscarcinoma of the stomach in a man aged 24 years.

2. Reference is made to similar instances found in the literature.

3. Attention is drawn to the necessity of considering cancer, regardless of the age of the patient, whenever the symptoms are such as would suggest it were the patient in what is commonly considered "the cancer age."

BIBLIOGRAPHY

1. Golog. Meyer: Age Incidence of Gastric Cancer, with special reference to cancer in the young. J. A. M. A., 1923, 80-1299.

2. Osler and McCrae: Cancer of the Stomach in the Young. New York Medical Journal, 1900, 81-581.

3. Martin. Charles F.: Organic Disease of the Stomach. Osler's Modern Medicine, 1908, V-221.

4. Sullivan, R. P.: Carcinoma of the Stomach in Young People. Surg. Gyn. and Obst., 1924, 39-283.

Note: I wish to express my thanks to Dr. A. S. Crawford who performed the operation and was kind enough to allow me to make the report.

Glycosuria Without Hyperglycaemia in Pregnancy; Report of Case

BY W. C. EDWARDS, M.D., AND R. F. BREEDEN, M.D.
Richland Center

Sugar may be found in the urine of about one-half of all pregnant women, especially during the last tri-mester of pregnancy, but this sugar nearly always is lactose; and when demonstrated as such need not be considered of any clinical significance. True glycosuria is very rare, and when it does occur the greatest care must be exercised in the management of the case, for with a diabetes mellitus the prognosis to mother and child is exceedingly grave.

However, one must keep in mind the fact that all cases of glycosuria are not diabetes mellitus, and when sugar is found in the urine, one must determine whether it is a manifestation of a true diabetes mellitus, or is merely an alimentary or renal glycosuria. Occasionally one finds a case of glycosuria in which the amount of glucose may vary from one-fourth to two or three per cent without materially interfering with the normal course of the pregnancy or causing any discomfort to the patient. The sugar in such a case nearly always disappears following the delivery, but the condition is prone to recur in following pregnancies, and may eventually result in a true diabetes mellitus.

Estimation of blood sugar in all cases of glycosuria is of greatest importance, for if a normal blood sugar is found rigid dietetic instructions are not needed. The demonstration of a normal blood sugar in a case of glycosuria is of comparatively

recent occurrence, and now with the advent of insulin in the treatment of diabetes mellitus, we must not use it in the treatment of a case of glycosuria without knowing first whether or not a hyperglycaemia is present. This warning is especially true in smaller communities where one does not have free access to a laboratory equipped to make blood sugar calculations.

The glucose present in the urine during the latter months of pregnancy, when there is no increase in the blood sugar, is probably due either to an increased permeability of the kidney to carbohydrates, or is an alimentary glycosuria due to a decrease in sugar tolerance; and is not due to perversion in carbohydrate metabolism. In the case investigated by us there was a definite relation between food intake and sugar output in the urine. Sugar did not appear until an hour after eating, and after four hours decreased rapidly in amount. Payer has shown that pregnant women are less tolerant to sugar during the pregnancy than at other times; so it may be that with some patients the tolerance is reduced to such an extent that large amounts of sugar will appear in the urine.

The future of all such cases should be observed systematically for years, because it not infrequently happens that one of these cases of glycosuria of pregnancy develops a true diabetes mellitus later on in life.

REPORT OF CASE

History—Mrs. B. K., aged 37 years, was five months pregnant when she consulted us Oct. 28, 1925, for routine prenatal examination. Her general health had always been good. She had had four previous pregnancies, all of which resulted in normal full term deliveries. In the routine examination of the urine during the latter part of the pregnancy, the physician in charge then found a large quantity of sugar present. He made a diagnosis of diabetes mellitus without taking a blood chemistry, and put the patient on a rigid dietetic treatment along with Insulin injections daily during the remainder of the pregnancy. With this she felt so weak and dizzy that she could not do very much of her work, and was confined to her bed some of the time. In addition to this she worried so much about her condition, thinking that she could not live long unless she kept taking insulin injections the remainder of her life, that she became very melancholy and despondent at times. However, a full term baby was delivered normally, and examination of the urine for the next few weeks failed to reveal any sugar. Insulin was stopped at the time of delivery, and patient began to feel better immediately and improved rapidly.

Physical Examination—Was essentially negative except for a faint pre-systolic murmur at the base of the heart. The uterus was enlarged to the size of a five months' pregnancy. Blood pressure was normal.

A 24-hour specimen of urine was found to be—
Volume, 1850 c.c.
Sp. Gravity, 1.020.
Albumin, Negative.
Sugar, Positive with two drops urine to 5 c.c. Haines.

Qualitative examination by the State Laboratory of Hygiene revealed the sugar to be glucose and not lactose. The amount was 4%.

Blood chemistry done at that time showed the blood sugar to be 77.2 mg. per 100 c.c. The blood sugar stayed well within normal limits throughout the pregnancy, the highest being 87.8 mg. per 100 c.c.

A 24-hour specimen of urine was examined once a week during the pregnancy, and the results were always about the same, varying as follows—
Volume, 1480 c.c. to 1700 c.c.
Sp. Gravity, 1.020 to 1.026.
Sugar, Positive with two to three drops urine to 5 c.c. Haines.
Quantitative Sugar, 4%.

Urine passed after the night urine, but before taking food in the forenoon was always sugar free. Therefore, in order to find out the time of maximum excretion of sugar, and the relation of food intake to sugar excretion, the patient's urine was examined as passed every hour during one forenoon, with the following results (5 c.c. Haines sol. used in testing)—

6:30 A. M.	(night urine) Sugar positive with two drops urine.
7:30 A. M.	Sugar free. Breakfast at 7:30 A. M. (2 cups coffee with sugar and cream, 1 dish oatmeal with sugar and cream, 2 slices toast, 1 glass water.)
8:30 A. M.	Sugar positive with 3 drops urine.
9:30 A. M.	Sugar positive with 1 drop urine.
10:30 A. M.	Sugar positive with 1 drop urine.
11:30 A. M.	Sugar positive with 2 drops urine.
12:30 P. M.	Sugar positive with 5 drops urine.

On Feb. 9, 1926, patient was delivered of a 9-pound boy, normal labor. Urine examined one week later was sugar free, and has remained so until present time.

CONCLUSIONS

1. A glycosuria without a hyperglycaemia may occur in pregnancy.

2. This condition will disappear with the delivery of the baby, but may recur in a following pregnancy.

3. The output of sugar in the urine varies with diet and food intake, but the blood sugar is not affected.

4. Maximum output of sugar in urine occurs about one and one-half hours after eating, and begins to decrease about four hours after eating.

5. Quantitative output of urine remains within normal limits.

6. Patient does not experience any of the symptoms of diabetes, although the amount of glucose in the urine may be as high as 4%.

BIBLIOGRAPHY

Payer: Ueber den Einfluss des Zuckers auf den Stoffwechsel der Schwangeren, etc. Monatsschr. f. Geb. u. Gyn., 1899, xi, 784-806.

Joslin: Pregnancy and Diabetes Mellitus. Boston Med. & Surg. J., 1915, clxxiii, 841-849.

Allen: Studies Concerning Glycosuria and Diabetes. W. M. Leonard, Boston, 1913.

Tetanus: A Case Report

BY LOUIS MILSON, A.B., AND H. HENDRICKSON, M.D.,
Green Bay

The following case of tetanus is considered of interest because of the advancement of the condition and the ready cure obtained upon the institution of energetic treatment.

On the evening of October 13, 1925, a young boy was brought to St. Mary's Hospital in a car, giving the following history:

Nine days before admission, the boy suffered a puncture wound of the left heel by stepping on a piece of glass. The wound was not given particular attention until seven days later, when the boy began to complain of pain and stiffness in the neck and difficulty in opening the mouth. This kept on getting progressively worse until the time of admission. The family history and past history were negative.

Physical examination on admission revealed a boy aged ten, well developed and nourished, appearing to be in distress and complaining of severe pain in the back and in the muscles of the neck.

The jaws were set so tight that he was hardly able to open them; any attempt to do so causing severe pain. The pulse was 96, respiration 24 and temperature 99.2 degrees. There was observed in lying down, an arching of the back suggesting opisthotonos. The eyebrows were raised and the angles of the mouth drawn out, giving the appearance of Risus Sardonicus. The pupils appeared regular and equal, reacting to light and accommodation. The jaws were rigid and any attempt to separate them brought on spasms of the muscles of the face and neck. The head was held rigid, due to the pain and spasm of the muscles of the neck. The heart and lungs apeared to be normal except that the rate of the heart was increased.

Examination of the abdomen revealed no marked tenderness or rigidity and the liver and spleen were not palpable.

There was a small puncture wound of the size of an ordinary nail present on the left heel and the entire limb appeared rather stiff and tender. The patellar reflex was hyperactive. The pupillary reflexes were normal and the Babinski, Kernig and ankle clonus were negative. A diagnosis of acute tetanus was made.

TREATMENT AND PROGRESS

On entering the hospital on October 13th, 1,500 units of tetanus antitoxin were administered intramuscularly and followed an hour later by the intravenous injection of 8,000 units. During the night the patient was very restless and the administration of morphin sulphate gr. ⅛ hypodermically gave him no marked relief. He complained of severe pain in the jaws and neck. The following morning the punctured wound was cauterized with an electric cautery. At the same time a lumbar puncture was made and 15 cubic centimeters of spinal fluid withdrawn. Ten thousand units of tetanus antitoxin were then given intraspinally.

The patient was kept in a dark and quiet room away from all possible noise and irritation and morphin sulphate and chloral hydrate were given for the restlessness. He had considerable emesis during the day and was hardly able to take nourishment because of the tightening of the jaws. Nutrition was maintained by the administration of liquids through a glass tube inserted between the teeth. In the evening of the same day 5,000 units of tetanus antitoxin were given intramuscularly.

On the morning of October 15th, 10,000 units of antitoxin were given intraspinally. In the afternoon 10,000 units of antitoxin were given in the gastrocnemius muscle around the site of the punctured wound over the course of the popliteal nerve.

On the morning of October 16th, 10,000 units of tetanus antitoxin were again given intraspinally, followed by an intramuscular injection of 10,000 units in the afternoon.

On October 17th, the stiffness of the jaws and rigidity of the muscles of the face and neck began to subside and the patient showed general signs of improvement.

On October 18th, the last 10,000 units of tetanus antitoxin were given intramuscularly and the patient gradually assumed a more cheerful appearance. From this time on recovery was uneventful. A total of 74,500 units of tetanus antitoxin was thus given and all the evidence of tetanic infection had gradually disappeared.

The patient returned home in good condition on the seventh day and reports obtained today show the patient to be in good health.

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A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

THE FIRST ANNIVERSARY

ONE year ago this month the Wisconsin State Board of Examiners in the Basic Sciences held their first meeting. Three non-medical educators, each of national repute, met to administrate a new law of this state—the first of its kind in the nation.

That Professors R. N. Bauer of Marquette University, M. F. Guyer of the University of Wisconsin and F. G. Hall of Milton College have done their work admirably, none can question. They are giving much that a public health measure may be administered well in the interest of the people of Wisconsin. We congratulate them on their notable success.

To the one who inspired the measure, and to those who worked that it might become a law, we extend congratulations upon their thoughtful and careful work.

"EXAMINING BOARDS FOR THE BASIC SCIENCES

TWO states, Wisconsin and Connecticut, have established examining boards in the basic sciences composed, in each instance, of three laymen, none of whom shall be a teacher, or shall hold a degree in any of the so-called healing arts. In Wisconsin the basic sciences include anatomy, physiology, pathology and diagnosis, while in Connecticut the subject of hygiene is added. This represents a new feature in medical legislation, and we are fortunate to be able to publish the article of Prof. M. F. Guyer, Ph.D., of Wisconsin in the April number, and that of Dr. Robert L. Rowley of Connecticut in this issue, describing the work of these new examining boards.

"The underlying purpose is to determine the fundamental qualifications of applicants for the practice of any of the healing arts. There may be some difference of opinion as to what constitutes fundamental knowledge necessary for admission to the more advanced technical or professional examination. Naturally, the question arises whether this can best be accomplished by a board composed of non-medical examiners. It certainly places a large responsibility on the appointing body, but the careful selection of personnel in the two boards mentioned gives assurance that the plan will work out well.

"The members of these boards will probably function very little as actual examiners, since they are permitted to select experts in the different subjects to conduct the several examinations. It is also unlikely that practitioners from any of the cults or other limited forms of practice will be called on for this purpose. Furthermore, applicants who are able to pass the required examinations will be confined largely to those who have been trained in a well organized medical school. These boards will therefore act more as a sifting agency, and instead of being a backward step it is distinctly a forward movement and will certainly advance the standards of education as well as of practice.

"A bill creating a similar board for the basic sciences was passed by the Washington State Legislature, but was vetoed by the governor. The senate passed the bill over the governor's veto, and it failed in the house by only a few votes. The sentiment in favor of this type of qualifying board is evidently extending to other states."—*Editorial, Federation Bulletin, Federation of State Medical Boards of the United States,* May, 1926.

FACTS AND FANCIES

FATHER Moulinier has with "apt alliteration's artful aid" very concisely and forcibly told us some worthwhile things about Facts. He says we must "Find the facts, focus the facts, filter the facts, face the facts and follow the facts."

In our professional work it is absolutely essential that we Find the Facts. I am reminded of an old German Clinician, who was often heard to mutter as he left a clinic: "Have I all the facts in this case, and nothing but the facts; have I reasoned correctly on them, and have I drawn proper conclusions?"

These are considerations that every one of us attempting to make a diagnosis should always keep in mind. But this is a materialistic age, and the medical profession, because of its scientific bent, is very apt to be too materialistic in their study of the human machine. There is a human or spiritual side in each one of us that must be just as carefully, and sometimes more carefully, con-

sidered than the material; and is it not a fact that we too often forget to inquire into the social status, the environment, the heredity and the suppressed and uncontrolled emotions of our patients?

We must Focus the Facts. Society has become so complex; and the individuals in this society who come to us as patients are of very varied temperament and constitution, and we should be able to center on the points in the history and the physical examination which have the most bearing on the particular case in point.

We must Filter the Facts. Let us depart from the individual patient for a moment, and consider if we, as a part of the community, are playing the part we should in the welfare of our community. There is very considerable grumbling in our profession because of the activity of lay organizations in public health matters. I wonder if this is not our own fault, largely. Have we taken the leadership in welfare work in a way that our professional studies prepared us to take? Are we active members and directors on committees having charge of public welfare work, whether town or county or state? Are we leaders as we should be? Do we thoroughly understand what they are doing when we criticise the work being done by the W. A. T. A., or the county nurses or the state hospital? These movements are known by the public; the public realizes the benefits growing from these movements and I think the public is often questioning what the medical profession is doing in promoting such movements. Are we filtering the Facts?

Whatever we think of these movements, whether we think they are for good or ill, we must Face the Facts. Acts like the Workmen's Compensation Act, and similar movements are leading large masses of the people to inquire if they are, after all, getting the best service for their outlay, from the medical profession. Men under the Compensation Act are getting every attention that the best professional care, hospital facilities and scientific appliances and discoveries can give them. These same people when not under the Compensation Act, realize that often they do not get similar care when seeking private professional service. Naturally, they inquire why. They are Facing the Facts, and whether we will or not, they, as a great cross section of the community, will soon be asking why not. The profession, I sometimes think, like the rest of the people—most strikingly exemplified in our educational system—are seeking to get around difficulties instead of facing them. This cannot be done. Facts are stubborn things and must be faced. A writer recently said that if Demosthenes lived in the Twentieth Century, instead of at the time he did, and in Greece; and instead of talking to the waves from the seashore with pebbles in his mouth, had been taken to a specialist and had his tonsils removed he would have come out a perfect—mediocrity.

Our profession will have more backbone, be better trained, have more highly developed gray matter and more respect from our fellow citizens if we will consider Facts as they are and follow them.—E. E.

"SIDE DOOR SHORT CUTS

NO doubt before the next legislature will be presented many bills, attempting to regulate incompetently the practice of medicine and needlessly to increase taxation. Many of these bills will provide for the licensing to practice medicine, of uneducated and improperly equipped men and women.

"We ask no especial favors for doctors, but we believe in a single standard of education and a thorough professional training before a man or woman can be licensed to practice the healing art or to diagnose disease.

"Persons who seek a license to treat human ailments in the State of Illinois should know how to make a diagnosis of disease which is essential for the conservation of the public health.

"There should be no side door short cuts to the practice of the treatment of disease in this state."

—*Illinois Medical Journal,* April, 1926.

MAIL DIRECTORY CARDS PROMPTLY

During the month of June, every physician in the state should have received a directory information card. Every one is urged to fill out and return the stamped card regardless as to whether he or she has changed their residence or office address.

This information will be used in compiling the Tenth Edition of the AMERICAN MEDICAL DIRECTORY, now under revision in the Biographical Department of the Association. The directory is one of the altruistic efforts of the Association and is published in the interest of the medical profession.

THE PRESIDENT'S PAGE

Joseph F. Smith

DISTRICT MEETINGS

At present there is a well developed movement to establish district meetings at various points throughout the state. These districts in most instances correspond roughly to the Councilor Districts and have been quite generally designated as "Councilor District Meetings".

The district meeting brings together a somewhat larger group of doctors than the county society meeting, but men who are nevertheless neighbors in their practice and generally more or less well known to each other. The district meeting makes for the development of a more friendly feeling and more of a spirit of cooperation among the men who serve the public in a given geographical district. It also affords an opportunity for bringing in outside program material and extends the scope and possibilities of medical extension teaching. This movement deserves encouragement, and it is to be hoped that each Councilor District in the state will arrange to hold at least one annual district meeting.

The district meetings should encourage and help the component county societies in holding regular meetings at which the problems of the smaller group may be discussed and the spirit of scientific study be promoted. The officers of the district society can frequently assist the county societies in providing material for meetings by promoting an exchange of speakers between neighboring or nearby county societies. The development of the district meeting should in this way serve to strengthen and encourage the component county societies.

DELEGATES TO THE STATE SOCIETY

The meeting of the State Medical Society presents two distinct aspects:

1. The discussion of such matters as affect the public relations to the practice of medicine;
2. The scientific program or assembly.

The first phase of the society's activities is carried on by the House of Delegates, composed of delegates elected by the county societies. All matters of policy and public relations are determined by the action of the House of Delegates. The officers of the society act under instruction of the House and are charged wtih carrying out its policies. It is important, therefore, that each county society be represented by a delegate. Some of the county societies send their president or secretary as their delegate. This procedure has much to be said in its favor as the officers of the county society are naturally more directly interested in and more familiar with the measures to be brought before the House of Delegates. Each county society should ascertain **NOW** whether or not the delegate it has selected is going to attend the state meeting. If he is not going or is in doubt as to whether or not he is going, someone who **will** go should be appointed in his place, and the appointee should be instructed to be present at the first meeting of the House on Tuesday evening, September 14th, and to all subsequent meetings and to bring back to his home society a complete report of the proceedings of the House.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1926

JOSEPH F. SMITH, Wausau, President
CARL HENRY DAVIS, Milwaukee, 1st Vice-President
W. E. FAIRFIELD, Green Bay, 2nd Vice-President
W. D. STOVALL, Madison 3rd Vice-President
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Executive Secretary
153 Oneida Street, Milwaukee

Councilors

TERM EXPIRES 1929
1st Dist., A. W. Rogers - Oconomowoc
2nd Dist., G. Windesheim - - Kenosha

TERM EXPIRES 1930
3rd Dist., C. A. Harper - - - Madison
4th Dist., W. Cunningham - Platteville

TERM EXPIRES 1931
5th Dist., O. B. Bock - - - Sheboygan
6th Dist., F. G. Connell - - - Oshkosh

TERM EXPIRES 1926
7th Dist., Edward Evans - - LaCrosse
8th Dist., T. J. Redelings - - Marinette

TERM EXPIRES 1927
9th Dist., Joseph Smith - - - Wausau
10th Dist., R. E. Mitchell - Eau Claire

TERM EXPIRES 1928
11th Dist., J. M. Dodd - - - Ashland
12th Dist., Hoyt E. Dearholt - Milwaukee

Delegates to American Medical Association

H. M. BROWN, Milwaukee
ROCK SLEYSTER, Wauwatosa
JOSEPH F. SMITH, Wausau

Alternates

W. E. BANNEN, LaCrosse
F. G. CONNELL, Oshkosh
R. E. MITCHELL, Eau Claire

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D. L. DAWSON, Rice Lake

Committee on Medical Defense

OSCAR LOTZ, Milwaukee
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ROCK SLEYSTER, Wauwatosa
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W. K. GRAY, Secretary, Wells Building, Milwaukee

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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Secretary
Ashland-Bayfield-Iron	C. O. Hertzman, Ashland	R. L. Gilman, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	C. C. Post, Barron	D. L. Dawson, Rice Lake.
Brown-Kewaunee	F. J. Gosin, Green Bay	F. M. Harris, Green Bay.
Calumet	J. A. Schmidt, Brillion	H. C. Krohn, New Holstein.
Chippewa	L. A. Larson, Colfax	C. A. Cooper, Colfax.
Clark	F. D. Jackey, Thorp	F. P. Neis, Thorp.
Columbia	A. F. Schmeling, Columbus	H. E. Gillette, Pardeeville.
Crawford	W. W. Coon, Gays Mills	T. E. Farrell, Seneca.
Dane	Louis Fauerbach, Madison	R. B. Montgomery, Madison.
Dodge	J. F. Brown, Waupun	A. A. Hoyer, Beaver Dam.
Door	John Hirschboeck, Forestville	T. C. Proctor, Sturgeon Bay.
Douglas	V. E. Ekblad, Superior	E. E. Carpenter, Superior
Eau Claire and Associated Counties	G. W. Beebe, Eau Claire	H. M. Stang, Eau Claire
Fond du Lac	M. M. Scheid, Rosendale	D. N. Walters, Fond du Lac.
Grant	E. C. Howell, Fennimore	M. B. Glasier, Bloomington.
Green	J. L. Fleek, Brodhead	J. F. Mauermann, Monroe.
Green Lake-Waushara-Adams	B. E. Scott, Berlin	A. J. Wiesender, Berlin.
Iowa	D. B. Hamilton, Ridgeway	M. W. Trentzsch, Highland.
Jefferson	W. C. Becker, Watertown	A. C. Nickels, Watertown.
Juneau	C. A. Vogel, Elroy	A. T. Gregory, Mauston.
Kenosha	W. C. Stewart, Kenosha	H. A. Binnie, Kenosha.
La Crosse	Sigurd Gunderson, La Crosse	N. P. Anderson, La Crosse.
La Fayette	H. B. Moe, Blanchardville	W. W. Peck, Darlington.
Langlade	E. G. Bloor, Antigo	J. C. Wright, Antigo.
Lincoln	E. K. Morris, Merrill	W. H. Bayer, Merrill.
Manitowoc	C. L. R. MacCollum, Manitowoc	L. J. Moriarty, Two Rivers.
Marathon	E. M. Macauly, Wausau	J. M. Freeman, Wausau.
Marinette-Florence	T. J. Redelings, Marinette	M. D. Bird, Marinette.
Milwaukee	S. J. Seeger, Milwaukee	E. L. Tharinger, Milwaukee.
Monroe	H. B. Johnson, Tomah	H. H. Williams, Sparta.
Oconto	C. W. Stoelting, Oconto	R. S. Elliott, Gillett.
Oneida-Forest-Vilas	C. D. Packard, Rhinelander	I. E. Schiek, Rhinelander
Outagamie	C. Reineck, Appleton	E. L. Bolton, Appleton.
Pierce	G. M. Dill, Prescott	Rolla Cairns, River Falls.
Portage	G. H. Lawrence, Stevens Point	F. R. Krembs, Stevens Point.
Price-Taylor	L. S. Dietrich, Medford	E. B. Elvis, Medford.
Racine	H. B. Keland, Racine	Susan Jones, Racine.
Richland	H. C. McCarthy, Richland Center	G. Benson, Richland Center.
Rock	E. B. Brown, Beloit	G. K. Woolf, Janesville.
Rusk	L. M. Lundmark, Ladysmith	H. C. Johnson, Bruce.
Sauk	H. J. Irwin, Baraboo	Roger Cahoon, Baraboo.
Shawano	A. J. Gates, Tigerton	C. E. Stubenvoll, Shawano.
Sheboygan	A. J. Knauf, Sheboygan	Howard Curl, Sheboygan.
St. Croix	F. S. Wade, New Richmond	O. H. Epley, New Richmond.
Trempealeau-Jackson-Buffalo	H. A. Jegi, Galesville	R. L. MacCornack, Whitehall.
Vernon	H. J. Suttle, Viroqua	Wm. H. Remer, Chaseburg.
Walworth	A. M. Leland, Whitewater	Carroll Rice, Lake Geneva.
Washington-Ozaukee	C. A. Balkwill, Grafton	A. H. Heldner, West Bend.
Waukesha	Thomas Miller, Oconomowoc	S. B. Ackley, Oconomowoc.
Waupaca	T. E. Loope, Iola	A. M. Christofferson, Waupaca.
Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis	Madison, Sept. 17-18
Medical Examiners	R. E. Flynn, La Crosse	

COUNCILOR DISTRICT MEETINGS, 1926

First (Dodge, Jefferson, Waukesha)	1927.
Second, (Kenosha, Racine, Walworth)	Racine
Third (Dane, Columbia, Green, Rock, Sauk)	1927.
Fourth (Crawford, Grant, Iowa, LaFayette, Richland)	Lancaster, August 31.
Fifth (Calumet, Manitowoc, Sheboygan, Washington-Ozaukee)	1927.
Sixth (Brown-Kewaunee, Door, Outagamie, Fond du Lac, Winnebago)	
Seventh (Juneau, La Crosse, Monroe, Vernon, Trempealeau-Jackson-Buffalo)	La Crosse, 1927
Eighth (Marinette-Florence, Oconto, Shawano)	1927.
Ninth (Clark, Green Lake-Waushara-Adams, Lincoln, Marathon, Portage, Waupaca, Wood)	Waupaca, July 21.
Tenth (Eau Claire and Associated, Chippewa, Pierce, Rusk, St. Croix, Barron-Polk-Washburn-Sawyer-Burnett)	Eau Claire, Fall
Eleventh (Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas, Price-Taylor)	
Twelfth (Milwaukee)	Fall

BARRON-POLK-WASHBURN-SAWYER-BURNETT

Forty members of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society and their wives met at Frederic on Tuesday afternoon, June 8th, for the June meeting of the society. The scientific meeting was held in the high school auditorium where the following program was presented: Dr. Ivar Sivertsen, "Surgical Diseases of the Spleen, Especially Bantis and Hemolytic Jaundice"; Dr. J. A. Diamond, "Management of the Second Stage of Labor"; Dr. R. G. Arveson, "Fractures of Jaw"; Dr. O. E. Benell, "Polycythemia Vera, With Report of Two Interesting Cases"; Mr. J. G. Crownhart, Secretary of the State Society, "Some Present Problems of the Society"; Mr. Theodore Wiprud, "Business Methods for the Physician".

The wives of the members were entertained at cards during the afternoon. At six all were taken in machines to the Diamond Lake Resort where a banquet was served. Following the banquet, Dr. R. G. Arveson introduced Hon. A. P. Nelson, former congressman from the Eleventh District. Mr. Nelson gave a splendid address on the history of medical advance and pointed out the great opportunities for service which exist at the present time and are indicated in the future. He urged a closer association between the profession and the public at large and between the members themselves, declaring that it was such association which could bring about a tremendous influence for good in the homes, the community and the state. Dr. J. A. Diamond expressed the appreciation of the Frederic group for the attendance and extended an invitation to the society to hold the June meeting regularly at Frederic hereafter. The meeting adjourned at nine.—D. L. D.

BROWN-KEWAUNEE

The last regular meeting of the Brown-Kewaunee County Medical Society before the summer was held at the Beaumont Hotel, Tuesday evening, June 1st. The meeting was in the nature of a symposium on Gastric Ulcers. Two reels of motion pictures showing classification and diagnosis of Gastric Ulcer were exhibited. This film, prepared under the direction of Dr. Lewis Gregory Cole, New York City, consists of thousands of drawings showing the six types of Gastric Ulcers together with x-rays of actual cases. It is a sequel to the film on "Gastric Motor Phenomena" shown before the society in 1925.

Physicians from Shawano, Marinette, Appleton, Manitowoc and Seymour attended the Green Bay meeting.—F. M. H.

CHIPPEWA

"Physical Therapeutics" was the topic discussed by Dr. J. C. Elsom, of the University of Wisconsin, at

the June meeting of the Chippewa County Medical Society held at Hotel Northern on the 9th. The paper presented was one of a course of post-graduate lectures given under the auspices of the University of Wisconsin.

A series of three more lectures are to be presented during the summer. Among the other cities enrolled for these lectures are: Eau Claire, Rice Lake, Wausau, Green Bay, Marshfield, and others.—C. A. C.

CLARK

The members of the Clark County Medical Society met at Thorp on June 10th. In the afternoon they were addressed by Dr. Joseph F. Smith, president of the State Medical Society, on the subject of "Periodic Examinations of Apparently Healthy Persons", and by Mr. George Crownhart, secretary of the State Medical Society. Following an extensive discussion the society had a group dinner.

Officers elected for 1926 are: President, Dr. F. D. Jackey, Thorp; Secretary-Treasurer, Dr. F. P. Neis, Thorp; Delegate to state convention, Dr. F. D. Jackey and Alternate, Dr. R. R. Rath, Granton.

The meeting adjourned at five-thirty.—F. P. F.

DANE

The members of the Dane County Medical Society enjoyed their annual picnic at the Mendota State Hospital on June 8th. The physicians engaged in the Junior World's Series Baseball Game which started at four o'clock. A short program and business meeting followed the dinner which was served at six-thirty.

—R. B. M.

GRANT

A meeting of the Grant County Medical Society was held at the Grantland Club Rooms, Lancaster, on May 20th. Papers were read by Dr. R. C. Buerki, Superintendent of the Wisconsin General Hospital; Dr. Erwin R. Schmidt, Dean of Surgery, University of Wisconsin; Dr. R. L. McIntosh, all of Madison, and Dr. E. H. Brooks, Appleton. Interesting discussions followed the reading of the papers and some unusual clinical cases were presented and examined.

A banquet was served at six o'clock followed by informal talks by the doctors present. A number of members of the Iowa and LaFayette County Medical Societies were present and also assisted with the program.—M. B. G.

WAUPACA

The annual meeting of the Waupaca County Medical Society was held at Iola on May 20th. Dr. T. E. Loope, Iola, was re-elected president of the society and Dr. A. M. Christofferson, Waupaca, will continue the secretaryship for another year. During the course of the dinner the physicians discussed various topics of interest to the profession after which the business meeting ensued. Dr. F. E. Chandler was elected delegate to the state meeting and Dr. T. E. Loope, alternate.—A. M. C.

WINNEBAGO

Dr. M. N. Federspiel of the Dental Polyclinic, Milwaukee, spoke before the monthly dinner meeting of the Winnebago County Medical Society on Thursday evening, June 3rd. The members of the Outagamie County Medical Society and the dentists of both counties were guests of the Winnebago County physicians. The affair was one of the most successful and largely attended dinners the society has given. Dr. S. D. Greenwood, president, was in charge of arrangements.

Dr. Federspiel's paper discussed diseases of the mouth and teeth and was illustrated with lantern slides. Following the talk, a general discussion of the points developed was led by Drs. F. Gregory Connell and W. N. Linn of Oshkosh, Dr. G. H. Williamson of Neenah and Dr. J. H. Hardgrove of Eden. The discussion was from the viewpoint of the physician, the surgeon and the dentist.—R. H. B.

FIRST COUNCILOR DISTRICT

Upwards of forty-five members of the first Councilor District were the guests of their councilor, Dr. Arthur W. Rogers, Oconomowoc Health Resort, on Thursday afternoon, June 17th, for the first First Councilor District Medical Society meeting. During the afternoon Dr. Joseph F. Smith, president of the State Medical Society of Wisconsin, presented the subject of "Periodic Examinations of the Apparently Healthy" and the meeting was then thrown open for a most interesting and very general discussion of this topic. During the discussion, Mr. George Crownhart, secretary of the State Society, told of the work that the society is doing in the field of lay education. At the close of the discussion, the members were served a buffet supper on the lawn and then returned to the hall for a discussion of the subject of "Brain Growths, Improved Methods of Diagnosis and Subsequent Treatment" by Dr. Peter Bassoe, Chicago. Dr. Bassoe's presentation was profusely illustrated by slides and the discussion was opened by Dr. B. B. Rowley of Milwaukee.

The meeting adjourned at 9:00 p. m. with a vote of thanks to Dr. Rogers for his hospitality and the expression of the entire group to hold annual meetings hereafter. Dr. Rogers was elected chairman and Dr. A. A. Hoyer was elected secretary of the district organization.

EIGHTH COUNCILOR DISTRICT

Sixty members of the 8th Councilor District and from surrounding counties met at Kelly Lake, Oconto County, on Thursday, June 24th, for the largest meeting ever held in that section of the state. The meeting was arranged by Dr. Redelings and Dr. Bird and the attendance included physicians from the upper peninsula of Michigan as well as Wisconsin.

The meeting opened at 3:15 with a paper on "Myocarditis" by Dr. W. J. Egan, Assistant Professor of Internal Medicine, Marquette University, Milwaukee. Dr. Rock Sleyster, Milwaukee Sanitarium, Wauwatosa, presented the second paper on "Nervous and Mental Disorders in General Practice". Dr. Joseph F. Smith, president of the State Medical Society, addressed the members on "Periodic Examination of the Apparently Healthy". Following the discussion of this paper, Mr. George Crownhart, secretary of the State Society, told of the work of the society in the field of lay education. The afternoon meeting was closed with a presentation of the subject of "Hypertension" by Dr. W. J. Egan.

Immediately following the afternoon meeting, a splendid dinner was served at the resort after which Dr. F. J. Gaenslen, Milwaukee, presented the address of the evening on the subject of "Orthopedic Problems in General Practice". The meeting adjourned at 9:00 p. m.

MILWAUKEE ACADEMY

The last regular meeting until fall of the Milwaukee Academy of Medicine was held on June 8th. Following the business meeting Dr. F. B. McMahon presented a paper on "Surgical Diathermy in the Treatment of Cancer of the Mouth and Tongue." A discussion on "Some Common New Growths of the Rectum and Anus" was given by Dr. A. W. Johnson and Dr. Karl Schlaepfer spoke on "Fibrosis in Chronic Passive Congestion of the Lungs as a Therapeutic Agent in Tuberculosis Infection."

Gifts of books have been received from Dr. Curtis A. Evans and Dr. Charles Zimmerman. Such donations are greatly appreciated by the Academy.—D. W. E. W.

MILWAUKEE PEDIATRIC SOCIETY

The Milwaukee Pediatric Society held its regular meeting at the Milwaukee Children's Hospital at 8:00 p. m. on June 9th. Dr. A. Levinson of Chicago presented a paper on "The Meningitides and Their Treatment." Dr. Milton Tobias of Racine gave a paper on "A Review of Tuberculosis in Childhood."

NEWS ITEMS AND PERSONALS

NEWS ITEMS AND PERSONALS

Several members of the Wisconsin Anti-Tuberculosis Association attended the annual convention of the Mississippi Valley Conference on Tuberculosis in Chicago during the week of June 14th. Among the Wisconsin delegates at the conference were: Dr. Hoyt E. Dearholt, executive secretary, Milwaukee; Mr. Will Ross, business manager, Milwaukee; Drs. T. L. Harrington, A. A. Pleyte and Frank I. Drake, Milwaukee, clinic physicians; and Dr. W. W. Bauer, health officer of Racine.

The degree of Doctor of Medicine was bestowed upon John Morris Dodd at the 170th commencement of the graduating class of the University of Pennsylvania. He is the son of Dr. J. M. Dodd, Councilor of the eleventh district, Ashland.

Dr. J. C. Wright of Antigo spent about ten days attending the commencement exercises of Rush Medical College and also the 45th reunion of the class of 1881, of which he was a member. The doctor was only 23 years old when he graduated from the medical school, being the youngest member of his class. There were 150 members, but Dr. Wright says the number has materially decreased since then.

An orthopedic clinic was conducted at Oshkosh on June 11th under the auspices of the Winnebago County Medical Society. This clinic had been arranged for the benefit of the crippled and physically handicapped of the city and was under the supervision of Dr. F. J. Gaenslen, Milwaukee, who spent the entire day at Mercy Hospital examining cases recommended by the city, school and county nurses.

To encourage investigations of alimentary tract function, Dr. Frank Smithies, Chicago, has presented to the School of Medicine of the University of Illinois, bonds in amount sufficient to yield annually, in perpetuity, not less than $100. This fund is known as "The William Beaumont Memorial Fund" and the income therefrom, as "The Annual Beaumont Memorial Award."

The award is to be made each year to the research or clinical investigator, who, in the judgment of a faculty committee, has contributed the most important work during the year, in the field designated.

The first award will be made in 1927. Manuscripts covering investigations do not have to be entered specifically for the award nor is it required that they be submitted to the faculty committee. The award is to be granted by the committe after it has considered carefully all investigations published during any year in periodicals throughout the United States. Thus, the award is available to workers in any institution, and is not confined to members of either faculty or student body of the University of Illinois.

Ten Wisconsin cities cooperated in an educational campaign for a more effective conduct of venereal disease prevention and control methods. Dr. Daisy M. O. Robinson, regional consultant of the United States Public Health Service, spent three weeks in the state for this purpose, addressing medical societies, social workers, nurses' groups, and consulting with enforcement officials.

Dr. Robinson came under the auspices of the State Board of Health and held her first meeting in Madison on June 15th. She also visited Beloit, Kenosha, Racine, Wausau, La Crosse, Superior, Eau Claire and Oshkosh.

The 500-pound sea turtle, caught off the coast of St. Petersburg, Fla., in the Gulf of Mexico, by Dr. R. C. Buchanan, Green Bay, has been on display recently in a show window of a local concern. A picture of the fisherman and his catch, taken while the sea mammal was still alive, accompanied the display.

The catching of the great turtle caused considerable excitement last February in St. Petersburg. When Dr. Buchanan captured the turtle he found it necessary to tie it to a tree outside of the hotel where its size attracted crowds.

The Marshfield Clinic of that city will soon occupy an attractive new home on South Central Avenue. The building provides facilities for laboratory work, for the care of patients, and offices for twelve physicians. Much thought and time has been given to the interior arrangement, which was planned with the one main thought of giving the most comfort to the patient. The offices of Drs. K. W. Doege, H. H. Milbee, V. A. Mason, H. A. Vedder, W. G. Sexton, K. H. Doege and E. Wisiol are on the main floor, as well as the general waiting room, a ladies' waiting room, the business office, examining

rooms, a dressing room and laboratories. Drs. J. B. Vedder, Wm. Hipke, R. P. Potter, L. A. Copps and S. G. Schwartz have offices on the second floor, which also has a waiting room, examining rooms, x-ray and physiotherapy departments, dressing room, laboratory and sterilizing room. The whole clinic has been well planned and is equipped in the most modern way.

Ovid Meyer, of Stevens Point, who has just completed the medical course at Columbia University, New York, has been assigned to the Wisconsin General Hospital, Madison, for intern work.

The annual election of officers of the staff of St. Joseph's Hospital, Ashland, was held recently following the regular monthly luncheon and discussion. Dr. A. X. Kamm, of the Ashland Clinic, was elected president of the staff while Dr. A. P. Andrus, the Clinic, was chosen as vice-president. Dr. R. O. Grigsby will act as secretary during the coming year. Following the election of officers and the appointment of committees, the staff listened to a case report by Dr. M. L. Young.

Dr. Robert F. Braun, Milwaukee, has discontinued his practice in that city and is taking a special course at Columbia University, New York City, the scholarship for which was awarded to fifteen surgeons in the United States this year. He is planning to establish a practice at Wausau this fall.

Dr. Leander P. Stamm and Dr. Timothy J. Howard have been appointed as district physicians of the Milwaukee County Dispensary. Dr. Stamm will fill the position left vacant by the death of Dr. J. H. Rohr, North Milwaukee, and Dr. Howard will fill the vacancy caused by the resignation of Dr. A. J. Heller, Milwaukee.

While Dr. A. J. Hebenstreit, city health officer at Juneau, was in Fond du Lac having a finger amputated as the result of burns from an x-ray machine, thieves entered his office and stole narcotics valued at $20 and liquor prescription book.

Dr. Louis Orbon of the staff of the Iowa State Hospital for the Insane at Mt. Pleasant, Iowa, has accepted the position as assistant to Dr. W. A. Decrhake, director of the Hospital for the Criminal Insane at Waupun.

The Beloit Clinic has added a new member to its staff in Dr. B. E. Willey, formerly of Fond du Lac. A complete physiotherapy outfit has been installed for the work of this new member, who will confine his work to this department.

Dr. O. J. Wolfgram, who for a number of years has practiced at Lyons, is now established at Burlington in the National Bank Building.

Dr. R. L. Gilman, The Clinic, Ashland, has joined the teaching staff of Dr. John H. Stokes in the Department of Dermatology and Syphilology, University of Pennsylvania.

Dr. O. H. Epley, New Richmond, and Dr. S. G. Larrabee, St. Paul, have joined forces and as a result New Richmond will have a clinic the second Monday of each month. Dr. Epley will continue his general practice while Dr. Larrabee, who specializes in eye, ear, nose and throat work, will take over those branches. Dr. Larrabee has been coming to New Richmond for some time and has already built up a practice there. He was formerly connected with the Miller Clinic of St. Paul.

The Fond du Lac Clinic has added to its staff, Dr. M. R. Sathe, who specializes in the eye, ear, nose and throat, and Dr. J. C. Yockey, who is devoting special attention to diseases of children. Dr. Sathe formerly practiced at La Crosse but since the war, studied extensively at Wenatchee, Wash., and at Chicago. Dr. Yockey comes from St. Luke's Hospital, Chicago, where he has spent the last two years.

Dr. R. B. Montgomery, Madison, has established his practice at Melrose where he will work with Dr. E. G. Higgins of that city.

Dr. E. E. Tupper, Eau Claire, has moved into the offices formerly occupied by the late Dr. J. V. R. Lyman. Dr. F. C. Kinsman, who was previously associated with Dr. Lyman, will be associated with Dr. Tupper.

Appointment of a college physician and creation of a completely equipped infirmary in charge of a registered resident nurse has been announced for Lawrence College students starting next September by Pres. Henry M. Wriston.

Dr. R. V. Landis, Appleton, has been appointed to make daily calls at all the dormitories in addition to attending to emergency calls. He will also examine Lawrence athletes and aid in their physical training.

Dr. A. J. Shimek was elected president at the annual meeting of the Holy Family Hospital staff, Manitowoc, on June 14th. Dr. J. M. Kelley, Cato, was named vice-president and Dr. A. J. Zlatnik, Two Rivers, and Dr. J. E. Meany, Manitowoc, were named as members of the executive committee.

Physicians from Green Bay, De Pere and Seymour, on a 1,300 mile tour of ten Wisconsin cities, were guests of the Pember-Nuzum clinic at a dinner at the Janesville Country Club, Friday evening, June 11th, and spent Saturday watching Janesville doctors perform special operations at Mercy Hospital. The group consisted of: Drs. J. R. Minahan, P. M. Clifford and R. C. Crikelair, Green Bay; Dr. Dan Gregory, De Pere; and Dr. V. J. Hittner, Seymour.

They left Green Bay on June 3rd and Janesville was the last city on the ten day itinerary before their return home. Cities visited included: Oshkosh, Marshfield, Wausau, Ashland, Superior, Eau Claire, La Crosse and Madison.

A fellowship of $3,000 granted by the American Anti Tuberculosis Association to Dr. William Snow Miller, emeritus professor of anatomy, for research in anatomy

of the lungs, was approved by the Board of Regents of the University of Wisconsin recently. Dr. Miller has been conducting studies in lung anatomy for several years.

As result of a recent gift from Dr. Joseph Schneider, Milwaukee, the Wisconsin Historical Society will publish a 16th century book which forms an exceedingly valuable source for the study of the history of medicine and pharmacy.

Dr. Schneider presented the society with a photographic reproduction of the book, "The Pharmacopoeia Augustana," published in 1564. One of the two original copies of the book in existence is in the University of Weurtzburg, Dr. Schneider's alma mater. It is written in Latin.

Dr. G. H. Lawrence of Stevens Point is spending the summer months in post-graduate study at Vienna.

Eighteen public and two private tuberculosis sanatoriums were represented at the annual mid-year conference of physicians, superintendents and nurses of tuberculosis sanatoria in Wisconsin held at Muirdale on Saturday, June 12th, under the auspices of the Wisconsin Anti-Tuberculosis Association.

The use of sunlight as a tuberculosis treatment was one of the principal subjects discussed.

Dr. P. L. Scanlan, Prairie du Chien, has been made a colonel in the Reserve Medical Corps and assigned as a commanding officer of a general hospital in a reserve unit.

MARRIAGES

Dr. C. J. Smiles, Ashland, and Miss Esther Peterson, also of that city, were married at Madison on June 1st.

Dr. Merle Q. Howard, Wauwatosa, and Miss Anita Clark of Berkeley, California, were united in marriage on June 17th.

DEATHS

Dr. Myron L. Huntington, Port Wing, died at his home on June 2nd. He was born in 1857 and was graduated from the University of Michigan Homeopathic School in 1883. The doctor had been out of practice for the past few years as he was suffering from chronic heart disease with fibrillation. Interment was made at Darlington. Dr. Huntington is survived by a son and a daughter.

Dr. J. S. Daniels, Omro, died at his residence on Tuesday afternoon, June 15th. He was born at Montrose, Penn., March 3, 1841, and was a graduate of Hahnemann Medical College, Chicago, in 1877. Before establishing his practice at Omro in the spring of 1880, he practiced for a short time at Holland, Two Rivers and Winneconne.

Dr. Samuel B. Ackley, died at Oconomowoc on Tuesday, June 22nd. Dr. Ackley was taken ill the preceding week while on his way to the First Councilor District meeting and was rushed to the Summit Hospital. An abdominal operation was performed but Dr. Ackley failed to recover. Dr. Ackley was born in Oconomowoc in 1866 and was graduated from Rush Medical School with the class of 1892. His specialty was Neurology and Psychiatry and following practice in Oshkosh and Waukesha, he established the Oconomowoc Sanitarium twelve years ago. He has long been an officer of the Waukesha County Medical Society and at the time of his death was its secretary. He was a member of the State Medical Society of Wisconsin and the American Medical Association.

SOCIETY RECORDS

NEW MEMBERS

Salan, Sam, Waupaca.
Wullschlaeger, G. G., 1087 National Ave., Milwaukee.
Hunt, W. R., National Home Hospital, National Home.
Lungmus, B. A., 772 Third St., Milwaukee.
Graham, C. W., 1017 Kinnickinnic Ave., Milwaukee.
Bruins, D., 272 35th St., Milwaukee.
Baranowski, S. A., 480 Mitchell St., Milwaukee.
Kriz-Hettwer, Rose, 3826 Vliet St., Milwaukee.
Farrell, F. R., 2905 Clybourn St., Milwaukee.
Borcherdt, M. A., New London.
Perlson, P. H., 805 12th St., Milwaukee.
Golden, C. H., Wonewoc.
Rhea, C. W., U. S. Veterans' Hosp., Waukesha.
Wheeler, Theodora, Lake Geneva.
Robinson, B. N., Baraboo.
Conway, J. M., Spring Valley.

CHANGES IN ADDRESS

Shuart, C. D., Brandon, to Waupun.

Covey, Clyde B., Waukesha, to U. S. Veterans' Hosp., Palo Alto, Calif.

Spencer, Chas. F., Spokane, Wash., to 1612 Glenarm Pl., Denver, Colo.

Sherl, Sam A., Ashland, to 210 Rodney St., Brooklyn, N. Y.

Fogo, H. M., Augustana Hosp., Chicago, to Wisconsin General Hosp., Madison.

Montgomery, R. B., Madison, to Melrose.

CORRESPONDENCE

SHEPPARD-TOWNER EXTENSION

Chicago, June 8, 1926.

Mr. J. G. Crownhart, Ex. Sec.,
State Medical Society of Wisconsin,
153 Oneida, St.,
Milwaukee, Wisconsin.
Dear Mr. Crownhart:

Bills are pending in Congress to extend the life of the Sheppard-Towner Act, which our House of Delegates, in 1922, condemned as a type of undesirable legislation that should be discouraged. To make the action of the House of Delegates effective, the cooperation of state associations and county societies and of individual members is needed. Your assistance is therefore earnestly requested.

The accompanying pamphlet, "Further Fallacies in

Sheppard-Towner Propaganda," supplements the article in our May Bulletin, "The Sheppard-Towner Act: Its Proposed Extension and Proposed Repeal." Copies of both articles will be sent to you on request. Or if you prefer, send me the names and addresses of persons to whom you wish copies sent, and they will be mailed from this office with letters saying that you have asked that it be done. Prompt action is needed.

Can you not submit this matter, or the gist of it, to the readers of your journal in your next issue?

A copy of this letter is being sent to the President of your Association.

Yours truly,
Wm. C. Woodward,
Executive Secretary,
Bureau of Legal Medicine
and Legislation, American
Medical Association.

WCW—btm

Editor's Note—See page 361 for reprint of statements referred to in this letter.

Superior, Wisconsin, June, 1, 1926.

Mr. J. G. Crownhart, Secy.-Managing Editor,
The Wisconsin Medical Journal,
558 Jefferson St., Milwaukee, Wisc.
Dear Mr. Crownhart:

Enclosed you will find a copy of a letter which I have just written to the Professional Press, Chicago, and which is largely self-explanatory. In the interest of right, I wish you would give that letter, as well as this, early publication in the "Wisconsin Medical Journal."

Very fraternally yours,
T. H. Shastid, M.D.

June 1, 1926.

The Professional Press, Inc.,
17 North Wabash Ave.,
Chicago, Illinois.
Gentlemen:

In your "Blue Book" for 1926 I have just noticed, with much amazement, the unwarranted insertion of my name as that of an optometrist, also as that of a member of the "Kindly Optical Co.," of this city. "Kindly" I take to be a mistake for "Kindy," as there is no "Kindly Optical Co." here. Inasmuch as I have never in my life been an optometrist or a member of the Kindy, or any other, Optical Co., I take it much amiss that you should thus have inserted my name, or have inserted it at all, without the slightest warrant on my part for so doing.

I also notice, in the same edition of your "Blue Book," that, in the "Alphabetical Index," p. 434, you have "Shastiel, T. H., Superior, Wis." As there is no person by the name of "Shastiel" in this city, I take it that "Shastiel, T. H." is intended for "Shastid, T. H."

Though I have no quarrel with optometrists or opticians, I will thank you to leave my name out of your "Blue Book" hereafter, further not to represent me at any time as being a member of a business firm in which I have never had the slightest interest, financial or other.

Yours truly,
T. H. Shastid, M.D.
June 1, 1926.

Mr. J. G. Crownhart, Editor,
Wisconsin Medical Journal,
558 Jefferson St.,
Milwaukee, Wis.
Dear Mr. Crownhart:

Kindly publish the following advance notice of our meeting in the next issue of your Journal. Thank you.

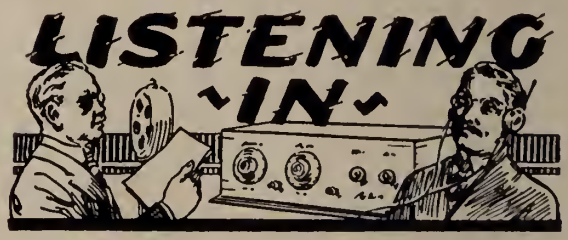
"ANESTHETISTS MEET

"The annual meeting of the Mid-Western Association of Anesthetists will be held October 11-14, 1926, at Kansas City, Mo., at the same time as the Clinic Week there. Headquarters, Baltimore Hotel.

"An interesting and attractive program is in the process of making. Any physician or dentist desiring to read a paper should send the title of his paper to the secretary very soon:

Ralph M. Waters, M.D., Sec.-Treasurer,
425 Argyle Bldg., Kansas City, Mo."

Fraternally yours,
Frances E. Haines.



AROUND THE CAPITOL

The Journal has the pleasure of announcing that under this title we shall carry each month news items from the State Capitol that will be of interest to our readers. This special service for the Journal is inaugurated with this issue and is furnished by Mr. Fred L. Holmes of Madison. Mr. Holmes is himself a former member of the Wisconsin Legislature and for many years has conducted the Holmes News Service at the State Capitol. He is also director of the special scientific news service furnished the daily and weekly press of this state by the state society.

FALSE REFERENCES

A member reports that he purchased a certain set of books partly because he was shown a list of names of other physicians in the state who, it was said, had subscribed for a similar set. He subsequently discovered that the physicians named had never heard of the publication, much less subscribed for it.

A. M. A. FELLOWSHIP

It has come to the attention of the Secretary that some members have confused membership in the American Medical Association with Fellowship in the Association. That all may know of the distinction we make the following statement.

Every member in good standing of his county medical society automatically becomes a member in good standing of the State Medical Society and the American Medical Association. Of the total dues paid, none are transmitted to the American Medical Association, however, the State Society receiving $9 and the balance being retained by the county society.

Membership is a prerequisite and entitles one to apply for Fellowship in the American Medical Association. Fellowship is to be had by application direct to the A. M. A. enclosing $5 which also covers subscription to the Journal of the American Medical Association. Any other publication of the Association may be substituted if preferred, a slight increase being charged in some instances.

Fellows of the American Medical Association have privileges not extended to the general membership. Such privileges were set forth in this Journal for December, 1925, but we may mention here the right to attend and participate in the annual meetings of the Association, the right to the special package library service conducted by the Association and receipt of the Bulletin of the American Medical Association.

HONORED

At the commencement of the University of Wisconsin, two honorary degrees were granted upon recommendation of the faculty of the School of Medicine. Those honored by the degree, Doctor of Science, were: William Snow Miller, Madison, Emeritus Professor of Anatomy of the University of Wisconsin and Dean Lewis, Professor of Surgery, Johns Hopkins University, Baltimore.

Their many Wisconsin friends extend congratulations.

AT MADISON

Members having questions relating to any subject in the field of medical practice which require information from Madison may refer them to the Secretary if they so desire. The Secretary visits the Capitol about every two weeks at which time he secures such information desired by members and for which there is no immediate hurry. On the last visit in June the Secretary had business in the following offices: Governor, Attorney General, Board of Control, Industrial Commission, Board of Health, Secretary of State, Conservation Commission and the Prohibition Commissioner.

TWENTY YEARS AGO

A plea to physicians to enter community life and become public officials was the theme of the President's Address given by Dr. John R. Currens of Two Rivers before the annual meeting of the State Society held in Milwaukee.

"Step into our legislative halls," said Dr. Currens, "and you will find that the lawyers compose the largest percentage among the professions. * * * My experience in the medical profession leads me to this conclusion: There is no class of men in a community, who, as a whole, are better read, more observing or better qualified to judge of the needs of the people than are physicians."

* * *

In an editorial comment on the meeting the Journal says, "The boat ride to Whitefish Bay was thoroughly enjoyed by a very large number of out-of-town guests and their hosts, but the difficulty experienced in obtaining comforts for the inner man at the Bay Resort, marred somewhat the pleasure of the evening."

* * *

Dr. L. H. Pelton of Waupaca was elected President of the State Society and West Superior was selected as the place of the 1907 meeting. Complaint was made by the House of Delegates that the regular medical profession was not adequately represented on the State Board of Medical Examiners. It was pointed out that with but three representatives, the "allopaths" had 2,600 licensed practitioners in the state, while both the eclectics and homeopaths had two examiners each with but one hundred practitioners each. Drs. A. W. Gray, I. G. Babcock and O. H. Foerster were appointed a Committee on Public Policy and Legislation.

* * *

"According to current reports, which so far as we know have not yet been authoritatively substantiated, the Milwaukee Medical College is contemplating a union with Marquette College, a most excellent local Catholic institution. * * * The affairs of the Wisconsin College of Physicians and Surgeons are in the future to be directed by a board of trustees selected from among Milwaukee's prominent merchants and capitalists."

* * *

The Journal reports the death of Dr. Charles R. Head of Albion who founded Albion Academy and who, as a member of the Assembly in 1853, "introduced the bill in the Legislature which abolished capital punishment in Wisconsin."

A town has no authority to assist a city in the construction and maintenance of a hospital. This is the opinion of Attorney General Herman L. Ekern in a letter to the State Board of Health. The issue was raised at Cumberland, Wisconsin. An adjoining town was desirous of helping a city to construct and maintain a hospital. The attorney general found no legal authority. It is evident, however, that this will become a matter of legislation next winter. The attorney general's office in the opinion held:

"Sec. 67.04(2)(h), Stats., provides that a city may borrow money for the construction of a hospital and the purchase of a site. It is clear that the city may construct and maintain a hospital, but neither sec. 67.04 nor any other section in the statutes that we have been able to locate authorizes a town to construct and maintain a hospital. There is likewise no authority for a town to

assist a city in the construction and operation of a hospital. In the absence of specific statutory authority it is the opinion of this department that the town cannot assist the city in constructing a hospital."

* * *

The inmate population of Wisconsin institutions is increasing steadily, taxing the facilities for their care.

The emergency board, consisting of the governor, secretary of state and state treasurer, during June appropriated $26,000 for the operation of three institutions. The appropriation was necessary, it was said, to supply food, clothing and medical care, as a result of increased inmates.

Of the sum, $5,000 goes to the Green Bay reformatory, $10,000 to the Waupun prison, and $11,000 to the industrial school for girls at Milwaukee. An additional $4,000 was appropriated to replace a washing machine at the prison.

The increase of state wards from May 31, 1925, to May 31, 1926, is classified as follows: Insane, 114; feeble minded, 83; penal, 148; tubercular, 9. The inmates in the state schools were 29 less than a year ago.

* * *

Improvements are being made at a number of the state hospitals according to the quarterly report of Charles A. Halbert, state chief engineer, made public recently.

The nurses' home, in connection with the new State General Hospital at the University is completed and ready for service, the report declares.

Bids are being advertised for refrigerating rooms and a scullery at the State Hospital for the Insane at Mendota.

The Tomahawk Lake camp for tubercular patients is undergoing excavation work preparatory to the erection of several new buildings.

Sketches for the infirmary to be built at the Wisconsin State Tuberculosis Sanatorium have been prepared and submitted to various experts in the country for advice.

Plans and specifications for two inmate buildings have been completed for the Northern Hospital for the Insane at Winnebago and bids are being received.

* * *

There is little real whiskey in Wisconsin outside of that handled through legal prescription channels, according to Louis Gunderson, state prohibition director. Mr. Gunderson declared that during the six months he has been in office, the department chemist has found but one pint of real whiskey although hundreds of gallons of liquor have been confiscated in many counties during that period. With the exception of the one pint the liquor consisted of moonshine and cut alcohol. Some of this liquor was colored and labeled to appear like old well-known brands of whiskey.

* * *

Physicians of the state have an opportunity to obtain free of charge a valuable booklet entitled, "Wisconsin, The Beautiful." This beautifully printed and well illustrated pamphlet has just been issued under the direction of the State Conservation Commission and the State Board of Health to give tourists and others desiring to visit scenic spots in Wisconsin information as to where the places are located. The edition is limited because of the small amount of money available for this purpose. Persons desiring to obtain a copy should write to Elmer S. Hall, state conservation commissioner, Madison, Wisconsin. The booklet contains a full list of all golf courses in the state and an article by Dr. C. A. Harper on the healthfulness of Wisconsin as a commonwealth.

* * *

The State Conservation Commission has issued a statement showing in brief form the bag limit and the open seasons for fishing. Most of the seasons open during the month of June, but the length of the fish and the bag limit each day vary. Following is the official summary:

Kind of Fish and Locality	Open season	Bag Limit: Quantity	Bag Limit: Minimum Length
(1) Large-mouthed black bass (Oswego green), small-mouthed black bass (yellow):			
(a) In the Mississippi river	June 15 to March 1	Ten each day	10 inches
(b) In Green Lake, Green Lake county	July 1 to March 1	Ten each day	10 inches
(c) In all other counties	June 20 to March 1	Ten each day	10 inches
(2) White bass	June 1 to March 1	Twenty-five each day	7 inches
(3) Strawberry bass, calico bass, silver bass, crappie	All year	Twenty each day	6 inches
(4) Rock bass:			
(a) In Green Lake county	All year	No limit	No limit
(b) In all other inland and out-lying waters	June 1 to March 1	Thirty each day	6 inches
(5) Trout of any variety, except lake trout, in all waters	May 1 to August 31	Twenty-five each day	7 inches
(6) Pike of any variety	June 1 to March 1	Ten each day	13 inches
(7) Pickerel:			
(a) In Neshkoro mill pond in Marquette county	All year	No limit	No limit
(b) In Juneau county except in the Wisconsin river between Juneau and Adams counties	All year	Ten each day	16 inches
(c) In all other waters	June 1 to March 1	Ten each day	16 inches
(8) Muskellunge	June 1 to March 1	One each day	30 inches
(9) Rock sturgeon, and the spawn eggs and fry thereof	None		
(10) Catfish:			
(a) In the Mississippi river	June 1 to March 1	No limit	15 inches
(b) In all other waters	June 1 to March 1	Ten each day	15 inches
(11) Bullhead:			
(a) In the Mississippi river, Lake Pepin and Lake St. Croix	All year	No limit	7 inches
(b) In all other waters	All year	Thirty lbs. each day	No limit
(12) Perch:			
(a) In counties bordering on the Mississippi	June 1 to March 1	No limit	No limit
(b) In Lake Kegonsa, Dane county	All year	Twenty-five each day	No limit
(c) In all other waters	All year	Thirty each day	No limit
(13) Sunfish, roach:			
(a) In counties bordering on the Mississippi river	June 1 to March 1	No limit	No limit
(b) In all other waters	All year	Thirty each day	No limit

The state and the various counties spent $1,403,256.56 in 1925 for mothers' pensions and pensions for the blind, according to a report by the State Board of Control.

During 1925 the state spent $1,167,629.15 in aiding 4,903 families with 13,496 children under the aid to dependent children's law or so-called Mothers' Pension law. Of this amount the 71 counties spent $1,137,629.15 and the state $30,000.

It was found that the average pensioned family consisted of a mother and three children and that the average family allowance ranged from $23.44 per month per family and $15.22 per month per child to $11.35 per month per family and $4.37 per month per child.

Scientific Program for Eighty-Fifth Anniversary Meeting at Madison Rapidly Taking Form; Entertainment Plans Nearly Completed

With twelve guest speakers selected, the scientific program for the annual meeting of the State Society, to be held at Madison in September, will present a variety of subjects that will be of interest to the profession throughout the state. Six general subjects will be given a half day on the program. These will be General Therapeutics, Internal Medicine, Allergy of the Skin and Vaccines, Orthopedic Surgery, Obstetrics and Pediatrics, and General Surgery.

Wednesday morning, September 15th, will be given over to General Therapeutics. Dr. Bernard Fantus, Chicago, will discuss the "Use and Abuse of Drugs"; Dr. Curran Pope of Louisville, "Physiotherapy", and Dr. J. A. Capps of Chicago will present a demonstration of the conduct of a Periodic Examination of the Apparently Healthy Person.

The afternoon session will be given over to subjects in the field of internal medicine. Drs. Joseph Miller, Chicago, and L. J. Carson, University of Maryland, will be guest speakers. At four Wednesday afternoon the members and their wives will be the guests of the Dane County Medical Society at a garden party to be held near Madison. The University of Wisconsin Band will play during the late afternoon.

On Wednesday evening the members and their wives together with the laity will meet at the First Congregational Church for the special program concluded by the President's Address. Immediately following the conclusion of this program, the members will be the guests of the Dane County Medical Society at a special smoker to be held in the Hotel Loraine, just across the street from the church. Special entertainment features are now being planned for the smoker.

A symposium on allergies and vaccines will be presented Thursday morning, the second day of the meeting. This will be led by Dr. Otto Foerster, Milwaukee, and Dr. H. S. Bernton of Washington, D. C. Orthopedic and General Surgery will be the

ON THE UPPER CAMPUS

subject matter for the afternoon session. The guest speaker will be Dr. J. L. Porter of Evanston, who will present "Some Orthopedic Problems of the General Practitioner".

The annual dinner, informal, for members and their wives will be held in the Loraine Thursday evening. President Glenn Frank of the University of Wisconsin will be a guest of the Society at the dinner. Following the dinner a special group of acts from the major Palace-Orpheum circuit will provide entertainment from a stage to be erected in

IN THE CAPITOL

FROM THE AIR

the banquet hall. Several hundred dollars has been appropriated to secure the talent for this evening entertainment.

Pediatrics and Obstetrics will be the subject for the Friday morning session. Guest speakers include Drs. J. O. Polak of Brooklyn, Jos. Brennemann of Chicago and H. F. Helmholz of Rochester. Dr. Ernest Sachs of St. Louis will be the guest speaker for the Friday afternoon session which will be devoted to surgery with special reference to neurological conditions. A preliminary program will be published in the August issue of the Journal.

Fifteen special committees are now arranging the final plans and details of the meeting. The Society's golf prizes will be awarded following tournament play on Tuesday, September 14th.

Late Tuesday afternoon members of the Council and officers of the State Society will be guests of the Secretary at a dinner meeting at the Madison Club. Beginning Tuesday evening the House of Delegates will hold three sessions to hear recommendations and adopt policies for the Society's work during the succeeding year.

Officers of the fifty-one constituent county medical societies will hold their annual luncheon meeting on Thursday noon. Dr. E. J. Goodwin, Secretary of the Missouri State Medical Society, will be the guest of the officers at this meeting. On the same noon the alumni of the several medical schools will hold luncheon meetings.

An extensive program of entertainment for the wives of visiting members has been arranged for the three days of the annual meeting.

EXTENSIVE EXHIBITS

With all but six of the thirty exhibit booths already reserved, the technical exhibit promises to be the largest and most attractive in the history of the society. In addition, a representative scientific exhibit is also being arranged. The exhibits will all be located in the Loraine Hotel where all meetings of the Society will be held.

THE FOUR LAKES CITY

Technical exhibits now include:
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Scanlan-Morris Company.
Spencer Lens Company.
Victor X-Ray Corporation.

The Sheppard-Towner Act: Its Proposed Extension and Proposed Repeal*

BY WILLIAM C. WOODWARD
Executive Secretary, Bureau of Legal Medicine and Legislation of the American Medical Association
Chicago

The term "Sheppard-Towner Act" is the popular designation for "An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes," approved Nov. 23, 1921. Exactly six months after the approval of this act, the House of Delegates of the American Medical Association adopted a resolution condemning it as "a type of undesirable legislation which should be discouraged." The act itself authorized appropriations to carry it into effect until June 30, 1927. If appropriations are to be made to carry it into effect after that date, it is necessary for the guidance of the federal budget makers and of the several state legislatures meeting in January, 1927, that legislation to that end be enacted at the present session of Congress. Bills for that purpose were introduced into the Senate and the House of Representatives, as reported in the *Journal*[1] at that time, authorizing appropriations for two additional years. The bill introduced into the House was passed. In the Senate, the Committee on Education and Labor has recommended the passage of the House Bill, but recommended that the period of the proposed extension be reduced from two years to one and that a definite date for the discontinuance of aid under the Sheppard-Towner Act be now fixed. With those recommendations the bill now awaits action by the Senate. In the meantime, another bill (H. R. 10986, "A Bill to repeal an Act entitled 'An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes,' approved Nov. 23, 1921, and amendments thereto") has been introduced in the House of Representatives. It seems worth while, therefore, to inquire into the nature of the original Sheppard-Towner Act, so as to facilitate intelligent action on the bills now pending and to promote a constructive program for future action should the life of the act be prolonged.

PURPOSE AND SCOPE OF THE SHEPPARD-TOWNER ACT

The Sheppard-Towner Act authorizes federal appropriations to stimulate and aid the states in protecting and promoting the health of mothers and infants. It denies aid, however, to every state that will not subject its activities to the supervision and control of a federal bureau and a federal board and that will not appropriate from the state treasury money to match the federal subsidy. If the state's plans for the hygiene of its mothers and infants are not pleasing to the federal board, no federal funds are forthcoming. If the federal board does not like the way the state is carrying its plans into effect, the board can discontinue federal aid. Each state must determine whether it will or will not accept the proffered subsidy and submit to federal supervision and control. Connecticut, Illinois, Kansas, Maine and Massachusetts have steadfastly refused to do so. The federal government is represented in the case primarily by the Children's Bureau. a lay bureau in the Department of Labor. The chief of that bureau, however, functions also as a member of the Board of Maternity and Infant Hygiene, her co-

*A. M. A. Bulletin, May, 1926.

members being the U. S. Commissioner of Education and the Surgeon General of the U. S. Public Health Service. The administration of the act is entrusted to the Chief of the Children's Bureau, the board having authority merely to pass on the adequacy of state plans and activities.

It can be readily seen from the foregoing analysis of the Sheppard-Towner Act that it empowers the federal government to use money, collected from the people through federal taxation, to induce or compel the several states to surrender to the federal government the right to supervise and control the hygiene of maternity and infancy within their respective state borders. That the federal government has no right to control such matters by direct federal legislation seems to be universally conceded. The question as to whether it has the right through the devious agency of conditional federal subsidies, as provided in the Sheppard-Towner Act, to accomplish that which it cannot accomplish directly has been presented to the United States Supreme Court for decision. The court held, however, that it could not properly pass on the question in the form then submitted, because the determination of the question submitted lay wihin the discretion of Congress, a coordinate branch of the government, and was not subject to review by the court. (Commonwealth of Massachusetts v. Mellon, and Frothingham v. Mellon, 43 Sup. Ct. Rep. 597). No one has yet found a way of bringing the situation before the United States Supreme Court in a form in which that court can pass on it, and the constitutionality of the act remains therefore undetermined.

PROPOSED EXTENSION OF THE SHEPPARD-TOWNER ACT

Some of the proponents of the Sheppard-Towner Act now contend that the act is permanent legislation. Up to the time of their recent declarations, however, it had been commonly believed that the act was temporary, limited by its own express provisions that authorized appropriations only until the fiscal year ending June 30, 1927. That view seems to be borne out by the now admitted necessity for specific legislative authority for any appropriation to continue operations under the act after the period stated; for if the act is permanent in character, new legislation should not be needed to enable Congress to make appropriations to carry it into effect.

In the hearings before the House Committee on Interstate and Foreign Commerce preceding the enactment by the House of Representatives of the bill to authorize appropriations for two additional years, the proponents of the legislation admitted that, if the purposes of the Sheppard-Towner Act as conceived by them are to be accomplished, an extension for two years was insufficient and that other extensions would probably be sought. They were unwilling to state any definite time by which, in their judgment, the purposes of the act would be accomplished. The House of Representatives looked complacently on the prospect of repeated appeals for extensions of the act and passed the bill providing for a two-year extension. In the Senate, the Committee on Education and Labor recommended that the bill passed by the House be enacted, but only after amendment reducing the extension of the act from two years to one. In the opinion of the committee, it seems, the work undertaken by the federal government under the Sheppard-Towner Act belongs in principle to the states and should be allowed to revert to them as soon as practicable. At present writing, the bill, with the committee's proposed amendment, is pending in the Senate. The bill providing for the repeal of the Sheppard-Towner Act is pending before the Committee on Interstate and Foreign Commerce of the House of Representatives.

FALLACIES OF THE SHEPPARD-TOWNER PROPAGANDA

In recent hearings before the House Committee on Interstate and Foreign Commerce, as in all other propaganda in support of the Sheppard-Towner Act, one looks in vain for facts and figures showing a reduction in maternal and infant mortality through the operation of the act. The best way to pass on the merits of the pending legislation to extend the act or to bring about its repeal seems to be, therefore, to examine the arguments commonly offered in support of the Sheppard-Towner plan.

1. *In support of the Sheppard-Towner plan it is commonly urged that maternal and infant mortality in the United States is excessive, as compared with maternal and infant mortality in other countries, and therefore must be reduced. The comparisons offered by the proponents of the*

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[1]Protest the Sheppard-Towner Act, J. A. M. A., 86:421 (Feb. 6) 1926.

See letter "Correspondence", page 355.

Sheppard-Towner plan, however, to show such excessive mortality in the United States do not justify the conclusion that such mortality is higher than in other countries; nor if it be higher, that such mortality in the United States can be reduced to foreign standards by legislative action, nor that the needful legislation could be enacted by the federal government more effectively than by the states.

Such figures as have been offered to show that federal interference is necessary have almost uniformly been unsupported by citations of the sources when they came. It is impracticable, therefore, to determine their accuracy or weight, and to determine whether they fairly present the entire situation. No evidence has been offered by Sheppard-Towner proponents to show that the statistical methods in the countries whose mortality rates they have cited are identical with the methods used in the United States. All figures offered by the proponents of the Sheppard-Towner plan are crude figures; that is, figures not distributed according to race, economic conditions, individual diseases or classes of diseases, and other conditions, with which every death is inseparably bound up and a knowledge of which is the very basis of prevention. Obviously, such figures cannot be analyzed and compared so as to afford a basis for rational conclusions and intelligent preventive action. But even though maternal and infant mortality were shown to be higher in the United States than in other countries, that fact alone would not justify federal or even state action until after it had been determined that the conditions operative in such other countries to prevent excessive mortality could be duplicated in the United States. And if it were shown that such conditions could be duplicated in the United States, it would still remain to determine whether such duplication should be effected by the states or by the federal government.

The burden of proving that the federal government, rather than the states, should assume the obligation of bringing about within each of the several states conditions that would reduce maternal and infant mortality would certainly rest on the proponent. For our state governments are with practical unanimity conceded to be supreme in matters of health within their own respective borders. Such supremacy is conceded by the Sheppard-Towner Act itself, for through it the federal government seeks, not to force its way into the state health program, but to pay the state for the privilege of supervising and directing it. State supremacy in the field of child health was admitted by the federal government through the enactment of the two more or less ephemeral federal child labor laws, through which it was attempted to regulate the health of children within the states, not by direct action, but under color of federal taxation in one case and of the regulation of interstate commerce in the other; and in both instances the United States Supreme Court took the firm ground, not only that the protection of the health of its people was the right and duty of the state, but that the federal government was powerless to interfere even by such subterfuges as had been attempted (Hammer v. Dagenhart, 248 U. S. 251; Child Labor Tax case, 250 U. S. 20).

The proponent of the right of the federal government to interfere in the health activities in the several states on behalf of their mothers and infants because of the supposed neglect of the several states would find a difficult task before him. He would find that in practically every state, without federal interference, there had been great reductions in infant mortality during recent years. If he carried his investigations into the period that has elapsed since the Sheppard-Towner Act was passed, he would find that its passage had not increased the rate at which that reduction was going on. He would find, too, that in some states in which the Sheppard-Towner Act has been accepted, infant mortality has increased. He would find that in those states that have not yielded to the terms of the Sheppard-Towner Act infant mortality has decreased quite as rapidly as in other states. He would find that the supposedly excessive maternal mortality in the United States as compared with corresponding mortality abroad may represent merely differences in statistical methods in stating such mortality and not differences in the mortality itself; and he would find that so far as decreases in maternal mortality have occurred during recent years, states which have declined federal assistance have records quite as good as those that have accepted it. On the whole, available evidence would hardly show that the federal government could accomplish any more in the field of maternal and infant hygiene than could be accomplished by the states themselves.

In the birth registration area of the United

States, the infant death rate per thousand live births fell from 101 in 1918 to 76 in 1921.[2] With the Sheppard-Towner Act in effect, it fell from 76 in 1921 to 72 in 1924. The maternal death rate per thousand live births fell from 9.2 in 1918 to 6.8 in 1921, and during the next 3 years it fell from 6.8 in 1921 to 6.6 in 1924. In other words, the infant death rate declined 25 points in the 3 years preceding the enactment of the Sheppard-Towner Act and only 4 points in the 3 years following its enactment. The maternal death rate declined 2.4 in the earlier period and only 0.2 during the later. These figures are not cited to show that the passage of the Sheppard-Towner Act retarded the decline in infant and maternal mortality rates. They do show, however, that that act did not accelerate such decline.

2. *The Sheppard-Towner Act stresses artificially the importance of maternity and infant hygiene. It does not take into consideration the relative importance of the various health activities in which a state must engage. It disregards limitations on the state's resources for health work and the possibility that to appropriate money to meet the requirements of the Sheppard-Towner Act it may be necessary to curtail essential activities in other fields. The act tends, therefore, artificially to unbalance the health program. From the standpoint of public health administration it is illogical and unwise.*

The Sheppard-Towner Act arbitrarily assumes that maternal and infant hygiene present the supreme problem in health administration. It allots to each state as an available subsidy an amount arbitrarily determined by Congress, based on the total population of the state, disregarding all other health needs and all limitations on the resources of the state to meet such needs. The health activities of every state, however, extend into many fields. Adequate water supplies and sewer systems must be provided. The food supply must be supervised and controlled, particularly the milk supply. The spread of communicable diseases must be prevented. Swamps must be drained to prevent malarial fever. Some states must contend with the hook-worm problem; others need not. School hygiene is of vital moment everywhere. The hygiene of maternity and infancy presents but one of the state's many health problems. No state, however, under the Sheppard-Towner plan, can determine unbiased the relative importance of its various health problems and allot to each the money the state should rightly give to it on account of its inherent importance. Its judgment is warped by the proffered subsidy.

3. *The distribution of money appropriated under authority of the Sheppard-Towner Act is arbitrary and irrational.*

The Sheppard-Towner Act provides certain arbitrarily fixed federal bonuses that are distributed equally to every state that submits to the act. It provides other payments computed on the basis of the relation of the total population of the state to the total population of the United States. Neither of these distributive schemes has any logical relation to the needs of the state with respect to maternal and infant hygiene. The work to be done relates to infants and their mothers. The number of births recorded annually would therefore have come nearer to affording a rational numerical basis for distribution of the fund than would any other available figure. Incidently, the distribution of the Sheppard-Towner fund on the basis of recorded births would have been a most effective method of stimulating birth registration. Some states, however, have been blessed with climates and with racial distributions of population that have prevented any serious infant mortality problem from arising, or else such states have through their own efforts gone a long way toward solving such problems. Obviously, such states are not so much in need of subsidies as are the others. So far as figures alone afford a guide —and it is on the face of figures alone that the Sheppard-Towner fund is distributed—Oregon with an infant death rate in 1924 of only 53 certainly did not need a federal subsidy so much as did South Carolina with an infant death rate of 102. Utah with a maternal death rate in 1924 of 4.5 clearly did not need stimulation to improve that figure so much as did Florida, with a maternal death rate of 12.1. Nor is there any reason, so far as these figures show, why Oregon and Utah should be forced by the Sheppard-Towner Act to appropriate from their own funds for the lowering of maternal and infant mortality amounts of money in the same proportion, based on the total population, as might properly be required of South Carolina and Florida, if the Sheppard-Towner plan was workable on a logical basis.

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[2]Congressional Record, 67:6721 (April 5) 1926.

4. *The purpose of the Sheppard-Towner Act is presumably to increase state appropriations and state activities for the lowering of maternal and infant mortality. The subsidies provided by the act, however, do not necessarily accomplish that end. Such subsidies are presumed to be matched against appropriations for new or enlarged activities. But they may be matched equally well against appropriations that were regularly made before the Sheppard-Towner Act was passed. The mere reallocation of items in a state budget can produce an apparent increase in the appropriation for maternal and infant hygiene and in that way procure an increased Sheppard-Towner subsidy, without any increase whatever in the state's activity in the field of maternal and infant hygiene.*

The cost of a campaign for the prevention of any communicable disease may be charged wholly against the appropriation for the prevention of communicable diseases, but as such a campaign is partly in the interest of infants and their mothers a part can be fairly charged against the appropriation for maternal and infant hygiene. In the former case, no federal subsidy can be obtained; in the latter a subsidy will be available. The cost of supervision and control of the milk supply can be entered in the budget against the cost of food inspection; but as the milk supply has such an intimate relation to the health of infants, a part of the cost can, without dishonesty, be charged against infant hygiene. If the former system of charging be adopted, no subsidy will be available; if the latter, the amount charged may be matched from the Sheppard-Towner fund. A state may reduce its normal appropriation for maternal and infant hygiene and yet obtain a subsidy. If a state cuts its appropriation in half, it can rely on the Sheppard-Towner subsidy to bring the fund back to normal. There is no certainty, therefore, that Sheppard-Towner subsidies will accomplish the end they are intended to accomplish. Apparent increases in state appropriations and state activities subsequent to the passage of the Sheppard-Towner Act must be studied so as to determine the methods by which such increases were brought about before it can be known whether they represent actual increases or mere paper increases, and the extent to which the Sheppard-Towner Act is entitled to credit for them.

5. *The extent to which Sheppard-Towner Act produces increases or decreases in maternal and infant mortality cannot be determined by a study of mortality rates alone. It must be shown by other evidence that but for the passage of that act such increases or decreases would not have occurred.*

Maternal and infant mortality rates during any given period are computed on the basis of the number of births. In this respect they differ from other death rates, which are computed on the bases less readily ascertainable. If protective measures for mothers and infants are successful, demonstrable improvements in the corresponding death rates should promptly become apparent. If any such improvement is found, inference as to whether the Sheppard-Towner Act has produced it can readily be based on the time of its occurrence, whether before or immediately after the acceptance of the Sheppard-Towner plan by the state, and on an examination of the record to determine whether the variation was one that might have been expected because of antecedent circumstances independent of the Sheppard-Towner Act. A comparison between the death rate in the community under supervision and corresponding death rates in other communities not subject to the Sheppard-Towner plan is necessary. Unfortunately, the data offered by the proponents of the Sheppard-Towner plan in support of the proposed extension of it are not of this character. They are of the most general kind, not properly correlated to Sheppard-Towner activities, too often from interested sources and not infrequently from persons who are hardly to be regarded as competent to speak on the subject.

6. *Maternal and infant health work cannot be separated from health work generally. If the government maintains supervision over maternal and infant health work in the states, it must ultimately gain control over all other health activities; otherwise there may be wasteful duplication of effort and a possible working at cross purposes by the federal and state agencies.*

The Board of Maternity and Infant Hygiene has apparently found already that to limit infant hygiene to the field commonly regarded as the field of infancy is impracticable. Infancy is commonly understood to cover children in the first year of life and, at most, children in the first and second years. The board, however, has enlarged the meaning of the term "infancy," so far as opera-

(Continued on page 370)

THE JOURNAL BOOK SHELF

Lectures on Nutrition. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1924-1925, 243 pages, illustrated. Cloth, $2.50 net. W. B. Saunders Company, Publishers, Philadelphia and London, 1925.

Ultra-Violet Rays in the Treatment and Cure of Disease. By Percy Hall, M.R.C.S., England. C. V. Mosby Company, Publishers, St. Louis, 1924.

A Text-Book of Psychology for Nurses. By Maude Muse, A.M., R.N. Illustrated. W. B. Saunders Company Publishers, Philadelphia and London.

Diabetes and Its Treatment by Insulin and Diet. By O. H. Petty, M.D., and W. H. Stoner, M.D. F. A. Davis Company, Publishers. (Second Edition.)

Psychoanalysis and Beyond Psychoanalysis. By Leonard L. Landis, M.D., Editor-in-Chief of the "Life and Health" Magazine. Present National Chairman of the American Association of Independent Physicians.

Medical Clinics of North America. Volume IX, Number IV, Tulane University Number, January, 1926. Octavo of 381 pages, with 49 illustrations. Per clinic year, July, 1925, to May, 1926. Paper, $12.00, cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Thoracic Surgery. The surgical treatment of thoracic disease. By Howard Lilienthal, M.D., Prof. of clinical surgery at Cornell University Medical School. Two octavo volumes totaling 1294 pages, with 904 illustrations, 13 in colors. W. B. Saunders Company, Philadelphia and London, 1925. Cloth, $20.00.

A Compend of Obstetrics. Revised and edited by Clifford B. Lull, M.D., Instructor of Obstetrics, Jefferson Medical College, Philadelphia; attending physician, Dept. of Gynecology and Obstetrics, Philadelphia General Hospital. Especially adapted to the use of medical students and physicians. Tenth edition, 84 illustrations. Price, $2.00 net. P. Blakiston's Son & Co., Philadelphia.

Treatment of Kidney Diseases and High Blood Pressure. By Frederick M. Allen, M.D. Part I. Practical Manual for Physicians and Patients of 206 pages. The Physiatric Institute, Publishers, Morristown, N. J.

BOOKS RECEIVED FOR REVIEW

The Thyroid Gland. The Beaumont Foundation Lectures. By Charles H. Mayo, M.D., Prof. of Surgery, University of Minnesota, Mayo Foundation, Rochester, Minn., and Henry W. Plummer, M.D., Prof. of Medicine, University of Minnesota, Mayo Foundation, Rochester, Minn. Series number four. Price $1.75. The C. V. Mosby Company, St. Louis.

Nursery Guide for Mothers and Children's Nurses. By Louis W. Sauer, M.D., Senior Attending Pediatrician, Evanston Hospital, and Assistant Attending Physician, Children's Memorial Hospital, Chicago. Second edition. Price $2.00. C. V. Mosby Company, St. Louis, 1926.

A Manual of Normal Physical Signs. By Wyndham B. Blanton, M.D., Associate in Medicine, Medical College of Virginia, Richmond, Va. Price, $2.50. C. V. Mosby Company, St. Louis, 1926.

Diseases of the Skin. By Richard L. Sutton, M.D., Prof. of Diseases of the Skin, University of Kansas School of Medicine. Sixth edition, revised and enlarged, with 1,147 illustrations, and 11 colored plates. Price $12.00. C. V. Mosby Company, St. Louis, 1926.

Physiotherapeutic Lectures. Third Edition. Condensed report of scientific papers read at the Fourth Annual Physiotherapeutic Convention held at the Drake Hotel, Chicago, October 12th to 16th, 1925. H. G. Fischer & Company, Inc., Chicago.

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M.D., Prof. of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totaling 8000 pages with 1500 illustrations, and separate Index Volume free. Now ready—Volume VIII containing 1102 pages with 388 illustrations and general index to Volumes I to VIII. Cloth, $10.00 per volume. W. B. Saunders Company, Philadelphia and London, 1926.

Medical Clinics of North America. Volume IX. Number V, Chicago Number, March, 1926. Octavo of 206 pages with 34 illustrations. Per clinic year, July, 1925, to May, 1926. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

Handbook of Diseases of the Rectum. By Louis J. Hirschman, M.D., Prof. of Proctology, Detroit College of Medicine; Proctologist, Harper and Woman's Hospitals. With 252 illustrations, mostly original, and five colored plates. Fourth edition revised and rewritten. Price, $6.50. C. V. Mosby Company, St. Louis, 1926.

Medical Clinics of North America. Volume IX, Number VI, Chicago number, May, 1926. Octavo of 202 pages, including complete index to Volume IX, with 24 illustrations. Per clinic year, July, 1925, to May, 1926. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

Blood Chemistry Colorimetric Methods. Second edition. For the general practitioner with clinical comments and dietary suggestions by Willard J. Stone, M.D., attending physician, Los Angeles General Hospital and Pasadena Hospital. Price $3.25. Paul B. Hoeber, Inc., New York, 1926.

Collected Papers of the Mayo Clinic, Rochester, Minn., 1925. Octavo of 1078 pages, 252 illustrations. Cloth, $13.00, net. W. B. Saunders Company, Philadelphia and London.

A Bipolar Theory of Living Processes. By George W. Crile. The MacMillan Company, New York, 1926.

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BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee, Wisconsin. These new books will be loaned for an inspection period only.

Diseases of the Skin. By Richard L. Sutton, M.D., Prof. of Diseases of the Skin, University of Kansas School of Medicine. Sixth edition, revised and enlarged, with 1,147 illustrations, and 11 colored plates. Price $12.00. C. V. Mosby Company, St. Louis, 1926.

In his latest edition the author maintains the high standard he has previously attained by bringing the subject matter thoroughly up to date, by deleting material that has lost its practical value and by introducing new disease conditions and new methods of diagnosis and treatment. The text is written in a concise, easily readable style, and is profusely illustrated with excellent clinical photographs and microphotographs, many of which are new. Although the book numbers 1300 pages the text is not verbose and the space allotted to the different subjects, as well as the number of accompanying illustrations, appears to have been determined by the relative practical importance of those subjects to the clinician. Each chapter includes a comprehensive reference bibliography.

The publishers are to be complimented on the excellence of the photographic reproductions, the choice of type, paper and binding, and the freedom from typographical errors. This volume needs no introduction or recommendation to the dermatologist. For both the student and practitioner it is unreservedly endorsed as a very excellent textbook on diseases of the skin.—H. R. F.

The Thyroid Gland. The Beaumont Foundation Lectures. By Charles H. Mayo, M.D., Prof. of Surgery, University of Minnesota, Mayo Foundation, Rochester, Minn., and Henry W. Plummer, M.D., Prof. of Medicine, University of Minnesota, Mayo Foundation, Rochester, Minn. Series number four. Price $1.75. The C. V. Mosby Company, St. Louis.

This small volume contains two essays, one by Dr. C. H. Mayo on "The Thyroid Gland," and one by Dr. H. W. Plummer on "The Function of the Thyroid Gland." The first essay is very readable, containing much information upon the History of the Thyroid. Dr. Mayo discusses briefly the Anatomy, Physiology, Biochemistry, Bacteriology and other matters pertaining to the gland. The part which specific bacteria play in the etiology of thyroid disease is told in some detail, although this conception is not accepted by most investigators. On the whole the essay is interesting and instructive.

In the second essay upon the Function of the Thyroid Dr. Plummer discusses very fully his hypothesis of the relationship of thyroxin to the gland and to the various tissues of the body. He gives also a classification of goiter which is evolved from his studies and he discusses very fully his method of administering iodine. This section is very important and merits careful reading.

The volume is interesting and should be of considerable help to those who wish to know the opinion of the men at the largest clinic in the country.—L. M. W.

Modern Methods of Amputation. By Thomas G. Orr, M.D., Prof. of Surgery, University of Kansas. Price, $3.50, with 125 illustrations. C. V. Mosby Company, St. Louis, 1926.

This book is a condensed summary of the newer methods and the approved older methods of amputations. The book is very well illustrated, not only from the operative standpoint, but also to cover the subject of temporary and permanent artificial appliances, that are indicated today in the rehabilitation of the disabled patient. The whole subject is treated in a very commendable manner, and represents the result of a large experience and a lot of thorough and painstaking work in the preparation of it. It will be a welcome addition to any surgeon's library, and especially so to those that are doing any industrial and accident surgery.

—F. B. McM.

A Manual of Normal Physical Signs. By Wyndham B. Blanton, M.D., Associate in Medicine, Medical College of Virginia, Richmond, Va. Price, $2.50. C. V. Mosby Company, St. Louis, 1926.

This little book is filled from cover to cover with suggestions and facts relating to the normal physical signs. The concise manner in which these facts are presented, may make it relatively easy for the student to memorize them, but this method of studying medicine is hardly to be recommended. The serious medical student wants to know not only the facts, but in order to understand and interpret the signs intelligently, must know the whys and wherefores.

Teachers are more and more appreciating the value of diagrams, pictures, moving pictures and the living subject in the instruction of their students: to attempt to teach physical diagnosis without these aids makes a comparatively dry subject absolutely arid.

Probably the best use for a book of this kind is to relieve the student from taking notes—but in order to be of any real value, the lecturer will have to follow the outline of the book.—O. L.

Nursery Guide for Mothers and Children's Nurses. By Louis W. Sauer, M.D., Senior Attending Pediatrician, Evanston Hospital, and Assistant Attending Physician, Children's Memorial Hospital, Chicago. Second edition. Price $2.00. C. V. Mosby Company, St. Louis, 1926.

In the preparation of a nursery guide, Dr. Sauer has used excellent judgment in the selection of material. Most books of this nature do more harm than good, in that they tell the mother too much and instill a feeling of self-confidence in situations where medical care is imperative. As a result, many pediatrists do not advise such books and prefer to take the more time-consuming course of imparting to each mother individual instruction. Yet, it cannot be denied that a small volume, giving general information and not infringing upon the domain of the physician, will enable the mother or nurse

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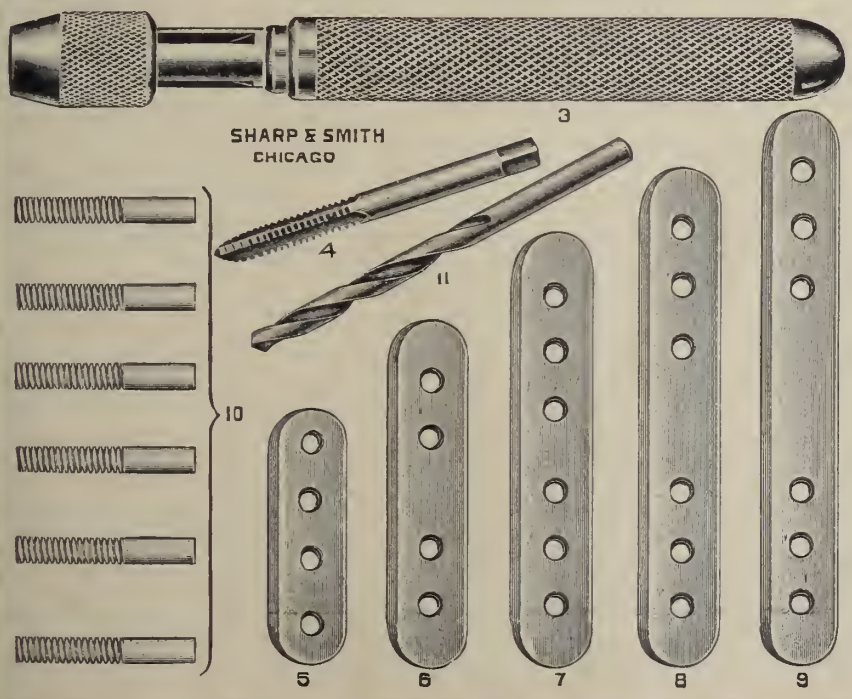

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to follow the physician's instructions more intelligently and exactly. Such a book is this one and the advice and instruction is in keeping with the latest advances in pediatrics. There is very little one can disagree with, although the use of scarlet fever antitoxin, convalescent measles serum, and pertussis vaccine is not yet established upon a firm foundation. But on the whole, Dr. Sauer's book is one of the best of its kind and one that can be safely recommended to parents as a safe and sane guide for home use.—R. M. G.

Diseases of the New-Born. By John A. Foote, M.D., Prof. of Diseases of Children, Georgetown University Medical School. A monographic handbook. Illustrated. Price, $5.00. J. B. Lippincott Company, Philadelphia, London and Montreal.

As is stated in the preface to this monograph, over thirty-five per cent of our total infant mortality occurs within the first two weeks of life, and it is estimated that in 1921 in the United States over 85,000 new-born infants died within two weeks after birth. Such statistics are, after all, our best apology for issuing a small and elementary work on the child at this period of life. A work, such as this one, which can disseminate knowledge of the diseases, malformations, and accidents of the new-born infant, should prove a welcome addition to the libraries of those physicians who deal with the infant at this time. Much detail not found in other textbooks of pediatrics is given in this book, including a chapter on diagnostic and therapeutic measures and a very welcome discussion on habit formation in the new born. All in all it is a well written, worth-while volume and a credit to Dr. Foote and his associates at Georgetown University.—R. M. G.

SHEPPARD-TOWNER EXTENSION

(Continued from page 365)

tions under the Sheppard-Towner act are concerned, to include all children below school age. With this as a precedent, and on the ground that an infant, in law, is a person who has not yet attained his majority, other extensions may be logically looked for. In Delaware, the Sheppard-Towner program included a campaign for a better milk supply. In Florida, dental clinics were established as a part of Sheppard-Towner activities. In Colorado, a gynecologist was provided for rural communities, the reason being, in part at least, to overcome "the great drawback of shyness or timidity in having the local doctor make the examination." Such applications are the logical outcome of the failure of the act to define what it means by "the welfare and hygiene of maternity and infancy." In the absence of such a definition there seems to be no reason why Sheppard-Towner activities should not extend ultimately to the control of water supplies, sewer systems and housing, and more particularly to the control of the food supply, and to the prevention of communicable diseases, particularly venereal diseases. All activities in the fields named are certainly related intimately to the health of mothers and of women about to become mothers, and to the health of infants. But if the federal government extends its supervision and control so as to cover state health activities generally, what is the future function of the state in this field, if it has any?

7. *The Sheppard-Towner Act involves a wasteful and unwise duplication of effort in federal health activities.*

The work done under the Sheppard-Towner Act is primarily medical work. The United States Government has a highly organized Public Health Service for the execution of such work, under competent medical direction. The Children's Bureau, which is charged with the execution and enforcement of the Sheppard-Towner Act, is a lay bureau. For such medical supervision as it exercises it has to employ physicians, and even then, in last analysis, the work of such physicians and of all physicians employed by the several states under the Sheppard-Towner subsidies, and all medical work whatever done under the act, is under the direction and control of the lay chief of the Children's Bureau.

8. *The proponents of the Sheppard-Towner Act claim that the interest of the federal government in mothers and babies justifies it in subsidizing in their behalf state health activities and in taking over the supervision and control of them. If so, the interest of the federal government in persons of other ages obviously would justify it in providing subsidies in their behalf and in taking over the supervision and control of health work for them also.*

Boys and girls, the youth of the country, and men and women of all ages are as important factors in the life of the nation as are infants and mothers. The wealth of the nation has already been expended to make them producing economic units in community life and to make them available to protect the nation in case of war. To them, the federal government must look for the care and nurture of coming generations, and even for the care and nurture of mothers and infants, on whose behalf the Sheppard-Towner Act expresses such solicitude. Obviously, the federal

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Medical Reports in Compensation and Personal Injury Cases*

BY RALPH M. CARTER, M.D.
Green Bay

At the present time, traumatic surgery probably occupies more of the attention of the average physician in active practice than ever before. Two factors are responsible for this: The chief one is the practically universal adoption of workmen's compensation legislation, with the resulting necessity for the employer to furnish medical attention for those injured in industry; thus many cases, especially of minor injuries, are sent to the physician for treatment which under former conditions were left to shift for themselves; a second factor of lesser importance is the wide-spread use of the automotive vehicle, leading to daily accidents on the roads everywhere.

In some manner or another, the question of insurance enters into practically all of these cases; consequently when a physician has undertaken the treatment of a patient suffering from an accidental injury which is covered by insurance, an important part of his duty consists in making a report to the company carrying the risk. For a number of years past, a fairly large industrial surgical practice has necessitated my giving considerable attention to this subject of reports, and work as a consulting surgeon has given me frequent opportunity to review the reports of others. The conclusion is forced upon me that sufficient attention is not given to the subject, and the object of this brief paper is to stimulate interest, so that these reports may be made of more value.

What is the purpose of these reports? Contrary to what many physicians apparently believe, they are not designed with a view to making our work more onerous and time-consuming; nor are they desired merely for statistical purposes. Insurance companies require them solely for the purpose of obtaining information. This information is absolutely necessary for the proper management and disposition of every case, and it is information which only the physician in charge can furnish. For this reason, it should be as complete as possible.

For purposes of discussion, these reports may be conveniently divided into two classes: (1) Those made by the physician in charge immediately after an accident; and (2) those made at some later time, either by the physician who has treated the case, or by another physician or physicians appointed to examine the injured individual with a view to determining the presence or absence of disability; or if dissatisfaction or controversy has arisen, with a view to testifying, either in court or before an industrial board or commission.

Most insurance companies furnish blanks for the first class of reports. As a rule these blanks touch only the high-spots; the ground covered by them is sufficient for minor injuries, but in the case of severe accidents, a supplementary, detailed report of findings, similar to that suggested below, should be forwarded in addition to the usual blank. Also, when a serious case is under treatment, it is very simple to send in frequent notes as to progress, and these are of much importance to the insurance companies and are greatly appreciated. All necessary information for this purpose may be conveyed by a post-card.

In the second class of cases, it is the duty of the physician to determine the nature and extent of the original injuries, the progress of healing, the amount of partial or permanent disability, whether malingering is present or not, the presence or absence of preexisting or coexisting pathological conditions which may influence the present disability, the prognosis, and all facts of similar nature, so far as they may be ascertained by physical examination; and a complete report should embody all this information.

*For valuable suggestions in the preparation of this paper, I am particularly indebted to Dr. A. D. Lazenby, Chief Surgeon, The Maryland Casualty Company, Baltimore, Maryland; Dr. E. W. Quick, of Milwaukee; Mr. E. E. Langworthy, of the Travellers Insurance Company, Milwaukee; Mr. B. E. Kuechle, of the Employers Mutual Liability Insurance Company, Wausau, Wisconsin, and Mr. S. B. Corr, of the Fidelity and Casualty Company of New York, Milwaukee, Wisconsin. The assistance of these and others is hereby gratefully acknowledged.

As I stated above, for several years past I have had frequent occasion to review reports of this nature. Several things become immediately apparent upon going over any number of them. First, there is an entire lack of uniformity; no two are alike; some are long, some are short, and the majority are more or less haphazard. Another point to be criticized, and one which constitutes the worst fault of all, in my opinion, is that many of them are absolutely valueless for the purpose for which they are intended. An examiner may write to an insurance adjuster somewhat as follows:

"Gentlemen:

I today examined Mr. John Doe. He states that he was injured on May 1, 1925, when he fell from a ladder and struck on his head. He says that he cannot work now on account of dizziness and headache. Upon physical examination, I am unable to find anything wrong with him.

Very truly yours,

. . . . . ."

Of what value is such a report as this to an individual probably many miles distant in another city, who has never seen the claimant, and who desires a complete description of him and his present condition; to whom, in fact, such a description is necessary in order for him to determine his course of action? This may be an extreme example, but such examples are not uncommon.

On the other hand, while an examination may have been very complete and thorough, the report is made in such a way that the salient points do not stand out as they should. While this is not so glaring a fault as the one referred to above, nevertheless, it is a fault which should be remedied.

What is desired in all reports of this character? First, *promptness* in rendering them is essential. Upon these reports depends the decision as to whether the injury is a compensable one or not; if it is compensable, arrangements for compensation cannot be made by the insurance company until the report is received. From an humanitarian standpoint, this may frequently lead to hardship on the part of the claimant; from the standpoint of the insurance companies, since they are required by law to set aside certain financial reservations for accidents that occur, early knowledge of the severity of any given accident and the probable duration of disability is necessary.

In the second place, a report should be *complete*. This does not necessarily mean that it must be wordy, although in my opinion, too many words are better than not enough. It should give a detailed story of the case from the time of the alleged accident or injury up to the date of the examination. The record of the examination should be given in full; if this examination was not a complete physical one, the fact shoud be clearly stated. The examiner should ask himself what questions can possibly arise in connection with the case which he could be expected to answer, and he should endeavor to anticipate these questions and incorporate the answers in his report, which should close with an intelligent and honest statement of his opinion.

In the third place, a report should be *clear* and *concise*. This does not mean that it may not be fairly long; it is sometimes impossible to make a good report, and make it short. But words should be chosen which have an exact meaning, and there should be no ambiguity about any of the statements.

In the fourth place, a report should be *absolutely unbiased*. An examiner should preserve a strictly impartial and judicial attitude of mind; the natural human tendency toward a partisan stand should be carefully guarded against, and the examination should be entered upon without prejudice. Certain symptoms are present. Some of these, of no importance perhaps, may loom large to the claimant, and be dwelt upon by him; others, of possibly far greater significance, may be passed over lightly. It is the function of the physician to carefully evaluate all of these, with reference to the mental make-up of the individual and in the light of the physical examination. Physical evidences of disease or injury, when present, are facts which speak for themselves. From these symptoms and physical signs, certain definite conclusions may be drawn, and these conclusions, when formed by any number of physicians experienced in this work, and with unbiased minds, would probably be approximately the same. Consequently judgment must be exercised, and the error avoided of unduly minimizing the immediate or remote effects of an accident; likewise the other extreme should be avoided, namely, that of making conditions appear worse than they really are. Injustice would be done to one of the parties in either event. What insurance companies desire are

facts; if the condition of a claimant is bad, they wish to know it; lack of this information may frequently lead to embarassing situations.

In the fifth place, the language of a report should not be any more technical than is absolutely necessary. Anatomical or medical words which are not generally understood should be avoided; if their use is imperative, they should be accompanied by a brief word of explanation, so that no doubt can arise as to what is meant.

An examination, to be thorough, should be systematically done, and from this it naturally follows that the report of this examination should be *systematic.*

In the making of any examination and report, common sense and good judgment should prevail. In the case of a claimant with an injured finger, it would be a waste of time and labor to make a complete physical examination and report, or to go into great detail regarding the accident and progress of the case; these things have no bearing on the matter in hand, and are neither necessary nor even desirable. On the other hand, in the case of a claimant who has sustained shock, multiple contusions, or severe injuries as a result of being struck by an automobile, a complete physical examination is absolutely necessary.

In my own work, I have gradually adopted a form of report which I find works very well in most cases. It is extremely simple and I claim no originality for it whatever. The various paragraphs are set down under the following headings:

1. Name and personal details.
2. The accident.
3. Progress after the accident to date of report.
4. Present complaints.
5. Previous history, if indicated.
6. General physical examination.
7. Special examination as indicated.
8. Comment and conclusions.

The first paragraph starts out with the name of the claimant and certain details as to place of residence, civil state, name of employer, kind of work engaged in at the time of the accident, length of time so engaged, and any other personal details of importance.

The date, place, and mode of occurrence of the alleged accident come next. This description is made as brief and accurate as possible.

The progress of the case from the time immediately after the accident to the date of the report is given in detail. This includes the time spent in hospitals, an outline of the medical treatment the claimant has undergone, the dates of any work done; in short, a detailed report of all important facts in the history of the case.

The claimant is then questioned regarding his present complaints. What are the symptoms which now trouble him? Just why is it that he cannot return to work? After he has enumerated these symptoms, and given the reasons for his present disability, the list is read over to him, and he is asked if there are any more—in fact, he is encouraged to give all he can, although care should be taken to avoid suggesting symptoms to him; the average claimant usually enumerates enough of his own accord; the examination is then proceeded with, having his complaints in mind, and especial efforts being made to find a physical basis for them.

At this point the previous history may be gone into if it has any bearing upon the case. In most instances, it may be dispensed with altogether, or in order to make the report entirely complete, a simple statement may be made in the paragraph on comment and conclusions that there is nothing of significance in the previous history of the claimant, if such is the case. Facts to be noted in the previous history as having a possible bearing on the present claim or condition are the number and nature of former accidents and injuries, the length of healing period as compared to the severity of former injuries, etc. Occasionally some aid in determining the presence or absence of malingering may be obtained in this way.

Until now, no attempt at examination has been made. The time has been entirely taken up in questioning the patient, endeavoring to elicit all the information possible, and in taking notes. He is now stripped and a thorough physical examination is made, including blood pressure and urinalysis, and occasionally a blood examination if indicated. X-rays are also taken, if necessary.

The next paragraphs of the report deal with a detailed description of any injuries or pathological conditions found. The location of scars and wounds is given as accurately as possible, their measurements are recorded, their shape, etc. The degree of limitation of motion in joints is stated; in fact, an earnest effort is made to present as accurate a description of the claimant's injury and present condition as is possible, so that an intelli-

gent opinion may be formed by one who has not seen the case at all.

The description of the x-ray films occupies a separate paragraph.

The report concludes with a resumé of all the pathological conditions found, a discussion of their significance, the probable ultimate outcome of the case, sometimes suggestions for further treatment, if indicated, and an estimate of the disability, whether permanent or temporary. In reporting this estimate of disability, it is not sufficient merely to indicate the percentage, according to the opinion of the examiner. The process of reasoning followed in determining this percentage should be indicated, and the conditions present, such as limitation of motion, ankylosis, loss of muscle power, deformity, nerve injury, etc., upon which the estimate is based should be clearly described.

When a report is typed, each paragraph has a separate heading, and these headings are capitalized and set well over to the left hand margin of the paper, the body of the paragraph being indented. In this way, any part of it may be referred to instantly, without the necessity of reading through the entire report.

Naturally this consumes more time and requires the exercise of more thought than the writing of a simple statement, but if a report is to be of any value whatever, it must necessarily be thorough and cover the whole ground; likewise, it should be a matter of persónal satisfaction to anyone to feel that he has performed his work to the best of his ability. In my own work, I try to arrange for these examinations, if possible, so that I may make use of as much time as I wish: I likewise endeavor to allow some hours to elapse before writing my reports, during which interval I think over the various aspects of the case. I have found that judgments and opinions formed immediately after an examination are often not so sound as those which materialize after a period of deliberation. In this connection, unless circumstances are such as to absolutely preclude it, I feel that in justice to himself, every examiner should insist on sufficient time in which to make his examination and form an opinion. To expect a physician to testify before an industrial commission upon some case which he has probably seen for the first time 10 or 15 minutes before, and of which he has made a very cursory examination before being called to the stand—to expect him under these circumstances to render an opinion which is fair to the claimant, the insurance company, and himself, is expecting the impossible. This is one of the things which makes much of the medical testimony at such hearings ludicrous, and which causes many commissioners to believe that all physicians are liars.

In all work of this character, the importance of careful record-keeping on the part of the physician is manifest. He should not trust to his memory for anything. Duplicates should be kept of every report and of all correspondence; frequently I have found it of value, during the progress of a case, to make notes of conversations I may have had with the claimant, in which things were said which might be of value later; these notes are then incorporated in the file.

In connection with the above remarks, something might be added concerning physician's bills for services. Most insurance companies insist that all statements rendered be itemized. This requirement is not an unjust one, by any means, for otherwise they have no way of knowing how much work the physician in charge has done on a given case, especially if the case is one extending over a considerable period of time. If bills for services are itemized when first rendered, much needless correspondence, and occasional ill-feeling, can be avoided. Even though a lump sum be charged, as in the case of a fracture of the femur, or an operation, the physician's bill may and should be itemized so as to indicate the number of visits he has made, the number of treatments administered, and the office consultations, even though no charge is made for the separate items.

In conclusion, this paper may be briefly summarized as follows:

1. Traumatic surgery today brings the physician into close relationship with the insurance companies.

2. Such being the case, the making of reports on cases under his care constitutes an important part of the physician's duty.

3. To be of value, these reports should be rendered promptly, they should be complete, clear, concise, unbiased, couched in plain language, and systematic. Supplementary reports should be rendered when necessary.

4. Careful records should be kept by the physician of all work done.

5. All bills rendered should be itemized.

SPECIAL DISCUSSION

BY L. A. TARRELL
Member, Industrial Commission of Wisconsin

From September 1, 1911, when the workmen's compensation law went into effect, until December 31, 1925, there was paid out in the 240,167 cases reported by employers of the State of Wisconsin, the sum of $23,492,971 as indemnity, and for the expense of medical aid, $7,651,225. The average cost per case for indemnity was $114 and for medical aid, $37. During the calendar year of 1925 in 25,786 cases reported by employers there was paid as indemnity $3,490,021, and for medical aid, $1,102,693, an average per case for medical aid of $52, and for indemnity $165.

The Industrial Commission is striving constantly to reduce accidents and the resultant loss of wage. If physicians and surgeons in the State of Wisconsin had followed the suggestions contained in the paper by Dr. Carter on "Medical Reports in Compensation and Personal Injury Cases" it is my belief that the cost for industrial accidents would have been reduced materially. Dr. Carter's paper is a splendid outline for guidance of physicians handling compensation cases.

There is nothing more important in the proper administration of the workmen's compensation act than to have prompt and comprehensive reports from the physicians who treat the injured workers. This subject is so important that the Industrial Commission gladly subscribes to any program which will impress physicians and surgeons of the necessity for prompt "first reports" and frequent follow-up reports. As a whole, physicians and surgeons have benefited more by the enactment and administration of the workmen's compensation law than any other class. With the security of fees brought about by this legislation, the physicians and surgeons in return should be willing to cooperate with those having to do with the handling of these claims, and especially with the administrative board or commission. Complaints frequently reach the commission of failure to make payments of benefits under the law to injured workers and as an excuse for such failure invariably the commission is told that it has been impossible to make payments because of the delay on the part of the attending physician in submitting a report showing that the worker has been disabled. If this condition persists it is natural to expect that a demand will be made by the workers of the state for a change in the law so as to provide more stringent requirements for physician's reports.

In assenting to the passage of the workmen's compensation law the workers of the state relinquished their common law cause of action to sue for damage, with the understanding that the workmen's compensation act would afford them certain prompt benefits in lieu thereof. To secure a compliance with the provisions of this law it is therefore encumbent upon the physician to report at once upon administering first treatment. Liberal rather than stinted estimates of the period of disability should be made. Supplementary reports should be made from time to time regarding changes of conditions. From these reports the employer and insurance carrier may be guided in making payments of indemnity to the injured. Without the so-called physician's first report, the employer or insurance carrier has no evidence of disability and cannot make payments to the injured. Delay in making these reports works to the hardship of the injured and also may work to the detriment of the employer or the insurance company because of the provision in the statute which penalizes the employer or insurance carrier for unreasonable delay in making payments.

Too much emphasis cannot be placed on the advisability and advantage gained from frequent supplementary reports from the physician in charge of the case. Detailed information as to the progress and development in the case furnishes the insurance carrier with information from which it may determine whether indemnity payments should be continued and enables the medical adviser to make suggestions for treatment.

Just what the mental effect upon the injured man may develop because of delay in making payments, is difficult to state. The number of neurosis claims has gradually increased until this subject is receiving considerable attention by the Industrial Commission. Of all persons having to do with the handling of workmen's compensation claims, the surgeon comes more in contact with the injured and is more responsible for the ultimate result of the injury than any other. To start with, it is most essential that the surgeon should impress the injured with his ability and fairness. If the physician is negligent in making his report to the employer or the insurance company, and because of his neglect in this respect the workman does not receive his weekly indemnity, this one element causes him to become suspicious of his physician. This is just one of the many elements which may enter into a full-fledged case of traumatic neurosis, and the suggestion is made that this condition may be relieved by the attending physician making prompt reports to the employer or insurance carrier.

SPECIAL DISCUSSION

BY EDWARD QUICK, M.D.
Milwaukee

It seems to me that Dr. Carter's article on "Medical Reports in Compensation and Personal Injury Cases" is timely. I dare say few men who have been in practice for a number of years have had called to their attention recently the importance of anamnesis. From our first day in clinical studies the matter of getting a complete history was emphasized by our best teachers. The securing of an accurate detailed history is frequently the most important part of the labor of getting a diagnosis. If we have a form of report in mind, we will have a method of history taking and examination in mind. Of course, no form is ideal. All forms must be modified for practical instances, but, a working plan is necessary. Otherwise the examiner will find frequently that essential facts have not been secured and he is unable to complete his work without calling for opportunity of seeing the patient again. Dr. Carter's suggestion of a form is excellent. Members of the faculty that have occasion to examine and report to anyone with respect

to disease or injury can with advantage have this form before them as a model. The elucidation by the writer is all to the point.

I wish to join Mr. Tarrell in emphasizing the importance of promptness of reports. I believe that first information regarding an injury should usually reach an insurance carrier first from the surgeon. The excitement caused in an industrial plant by an accident is conducive to delay in reporting. The surgeon is working in his own field. He is going about his affairs calmly. He should do at once the necessary paper work connected with the handling of an injured person.

Since the information concerning an accident should reach an insurance carrier first from the surgeon, this information should be complete. This is for the purpose of proper investigation by the insurance carrier if there is need for further investigation. The report should be specific with respect to the name, age, address, place of accident, exact time, and the mechanism. The report must be minute and specific in every detail, from the man's name to the last word regarding anticipated temporary and permanent disability. And, it is not so hard to predict what the outcome of a case is going to be. This point seems to be a stumbling block for so many of the younger colleagues. The prediction with respect to disability is the old subject of prognosis. We all know that prognosis flows logically out of diagnosis just as treatment flows logically out of it.

I wish to call attention in this connection to a practice that exists among nurses and first-aid men at industrial plants that is the cause of much annoyance to surgeons handling industrial injuries. I refer to the habit of calling the surgeon on telephone to make inquiry for his diagnosis to be included in the report from the plant to the insurance carrier. It is quite unnecessary for nurses and first-aid men to give a surgical diagnosis. The report from the plant should be purely a layman's report. This practice of requesting the surgical diagnosis from the surgeon adds just so much more irritation to the day's work and this practice should be discouraged by all possible means.

In reading Dr. Carter's article, I did not find the terms "Industrial Surgery" and "Industrial Surgeon" used. There is no such specialty as Industrial Surgery and no such specialist as an Industrial Surgeon so far as I am aware. However, the terms are much used and I believe a very considerable literature is going up around the two captions. They are frequently used by insurance companies, employers, industrial boards and others who have to do with traumatic injuries of all sorts. We all know the meaning of the term "general surgeon". We know it means a man who is qualified to take in hand without opportunity for study practically any sort of urgent surgery. He may be called upon in the course of a few days to a month to deal with a crushed finger, divided tendons, rupture of the spleen, intracranial hemorrhage, amputation at the hip, gut resection, suture of wounds of the heart, and what not. To be at home in the field of traumatic surgery he must be in the best sense an experienced general surgeon. This general surgeon in private practice is responsible to his private patient and to his patient's family. For his own purpose he keeps records of his work to be used for advancement of his knowledge, that of the general profession and for the purpose of protecting himself against actions under common law.

If the term Industrial Surgeon is to continue in use and there seems to be no way to get rid of it, I presume that it means and will mean a general surgeon that assumes the usual responsibilities, and in addition takes on a responsibility to the employer, to the insurance carrier, and to industrial boards. These additional responsibilities resolve themselves practically into a system of making reports. This is an added hardship, but it must be borne in mind that the general surgeon who is unwilling and who is not equipped to make complete and frequent reports concerning the people that he is handling, can have no lasting success in traumatic surgery that arises in industry. I dare say that many competent general surgeons have had sizable traumatic surgical practices taken away from them because they have been unwilling or unprepared to give this additional necessary service. I happen to know that there has been much heartache in some instances and the trouble was over this extremely concrete matter of making complete and timely reports. Men who have had every other reason for making steady advances in this field have found themselves shunned and cut off because they were unable or were unwilling to see the point.

The management of an insurance company, or the management of industrial relations by a large corporation carrying its own insurance, is a serious business. Unless we as surgeons are willing to furnish the data by which these corporations are able to carry on their business and establish proper reserves and know at all times just where they stand, we can expect to have our services frowned upon and after a certain point absolutely refused.

I can, therefore, most heartily commend as a matter of careful study every statement made in Dr. Carter's excellent article on "Medical Reports in Compensation and Personal Injury Cases."

SCARLET FEVER FOLLOWING NOSE AND THROAT OPERATIONS

Of forty-eight cases classed as surgical scarlet fever at the Durand Hospital, from 1902 to 1926, Beatrice R. Lovett, Chicago (Journal A. M. A., July 10, 1926), states that twenty followed operations, thirteen of which were on the nose and throat. Of these thirteen cases, seven were instances of scarlet fever following operations for cleft palate, two following resections of the nasal septum, and four following tonsillectomies. The intervals between operation and the first symptoms of the disease were, in two cases, two days; in six cases, three days; in two cases, four days, and in three, a few days. All patients had typical scarlet fever, and most of the cases were of the septic type. Complications were unusually numerous, including two instances of bilateral otitis media, two of unilateral otitis media, and two of sinus infections, making a total of six complicated cases in the series of thirteen. One patient, previously operated on for harelip and cleft palate, died following sloughing of the wounds, with profuse purulent discharge and double otitis media. Four nurses caring for this child caught the infection from him. In most of the cleft palate cases, there was sloughing of the tissues and imperfect closure of the defect, so that, although the wounds healed eventually, the operations were not very successful. The occurrence of scarlet fever in children following operations especially on the nose and throat suggests the wisdom of testing and immunizing the patients beforehand. This is particularly advisable preceding cleft palate operations, since most of the patients are at a susceptible age, and if scarlet fever develops, complications are frequent, and the results of the operation are poor.

Gastro-Enterostomy for Gastric Ulcer from Roentgenologic Viewpoint*

BY HOWARD CURL, M.D.
Sheboygan

Gastro-enterostomy, or more properly gastro-jejunostomy, is looked upon by many men as a primary drainage operation, in which the stomach plays no active part but acts merely as a food receptacle or funnel from which the food passes through the artifical stoma into the duodenum or jejunum. That this idea prevails in the minds of many surgeons is attested by the writings of Mumford[1]; Ochsner[2]; Howard[3]; Mayo Robson[4]; Binnie[5]; Balfour[6]; Outland, Skinner and Clendenning[7]; and, judging from their conversation, by many men who are doing gastric surgery. These men hold that the stoma should be placed near the greater curvature of the stomach in the most dependent portion, in order to promote more complete gastric drainage.

The above thought is contrary to the physiological laws of digestion. It is also contrary to the teachings of many men with large clinical and surgical experience. Woelfler[8], 1881, is credited with the first gastro-enterostomy. As early as 1886, Barker[9], in reporting one of Woelfler's cases, points out that the opening should be made, not in the most dependent portion of the stomach, but "as near the pylorus as possible". Since that time Senn[10]; Case[11]; C. H. Mayo[12]; Hartman[13]; Ashhurst[14]; and Rose and Carliss[15] have pointed out this same fact. A Howard Pirie[16], in a series of post-operative x-ray studies, concludes that when vomiting continues after gastro-enterostomy, it is due to food retention, usually caused by the stoma being placed too far from the pylorus. Palugyay[17], in a series of 61 post-operative roentgenoscopic studies, concludes that the site of the stoma should be selected according to the size and shape of the stomach, regardless of the location of the ulcer and "in the cow horn type of stomach", this should be near the pylorus. Carman[18], in a roentgenoscopic study of 69 cases for gastro-jejunal ulcer, leaves the choice of the site of the stoma to the surgeons, but a very pronounced finding in all of the cases he reviewed was retention.

My only reason to address you on this subject is, that during the past eight years I have examined twenty-seven cases following gastro-jejunostomy, in which there was a return of symptoms in from one to five years following the operation; in all of which the predominant finding roentgenologically was sacculation and retention beyond the gastro-enterostomy opening. Nine of these cases have been followed rather closely and over periods ranging from one to three years the distension and sacculation of the pyloric antrum has been observed fluoroscopically. We feel very strongly that in many cases, not all cases nor perhaps not even a majority of cases, but many cases where there has been definite indication for gastro-enterostomy, and where the operation has failed to relieve or where there has been a return of symptoms, that failure may be attributed to the improper placing of the gastric stoma.

In order that we more clearly understand the reasons for this we must remember that the stomach is not merely an anatomical sac, but is a physiological organ, the functions of which follow as definite a sequence of activity and are as autonomically controlled as are those of the heart. Let us, therefore, review briefly the physiology of the stomach, insofar as it pertains to the point under discussion. The stomach, Howell[19], is divided into five parts: The cardiac orifice; the fundus, which secrets mucus principally; the intermediate or pre-pyloric region, which secretes mainly hydrochloric acid; the pyloric antrum, which secretes mainly the digestive enzymes; and the pyloric orifice or ring. Muscularly the stomach is composed of three layers. The functions of the muscular coats are three: to constantly maintain a state of tonic contraction; to aid in digestion by thoroughly mixing the hydrochloric acid and digestive enzymes with the food stuffs; and in the propulsion of the semi-digested food stuffs onward. The tonic activity of the muscular walls supports the food column when the stomach is full, and keeps the stomach walls in apposition when the stomach is empty. When food is taken it is not allowed to spread out over the fundic and pre-py

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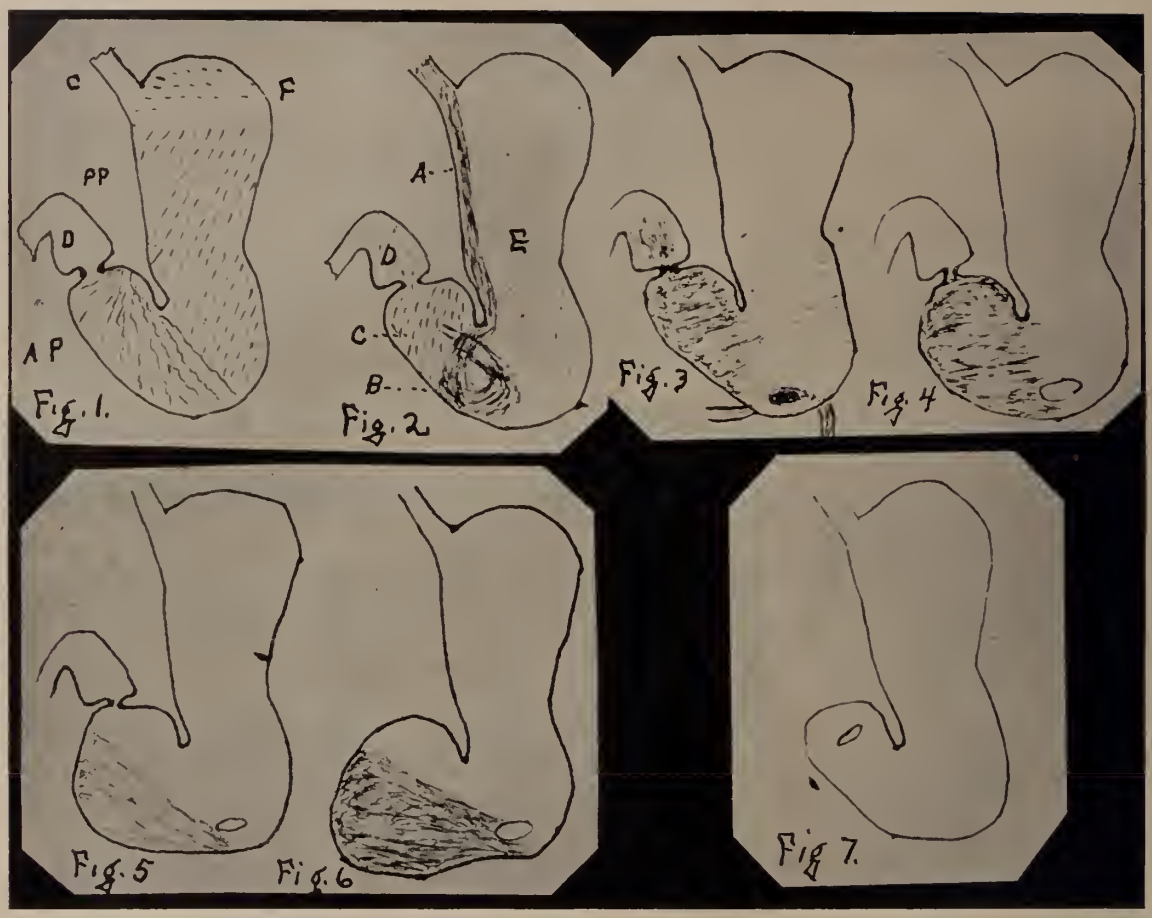

Fig. 1. Normal Stomach.
C. Cardia; F. Fundus; PP. Pre-pyloric region; AP. Pyloric antrum; D. Duodenal bulb.
Fig. 2. Normal sequence in filling of stomach.
A. Food column along lesser curvature, filling in order B, C, D, and slowly filling E.

Figs. 3, 4, 5 and 6.
Successive stages in the formation of sacculation and retention pouch.
Fig. 7. Proper position of stoma.

loric regions but follows a channel along the lesser curvature to and beyond the incisura angularis filling the pyloric antrum first (Fig. 1B), thus the most dependent portion of the stomach does not necessarily fill first.

In the study of the peristaltic movements of the stomach, Alvarez[20] has done a large amount of work on both animals and man. He feels that the stomach, like the heart, has a definite place of origin of the muscular contractions. This he thinks is situated at the junction of the esophagus with the stomach on the side of the lesser curvature. At this point it is probable that most of the contractions originate and spread over the fundus and pre-pyloric regions in very shallow waves, increasing in depth as they approach the pylorus. He thinks it probable that the muscles have the power and sometimes do originate contraction waves within themselves. He has, in a number of instances, noted such arising on the side of the lesser curvature near the incisura angularis. This is in agreement with fluoroscopic observations. The shallow waves over the fundus and proximal portions of the pre-pyloric regions are seldom seen on the screen. The contraction is usually seen just proximal to the incisura angularis and increases in depth as it rounds the greater curvature opposite the incisura angularis and proceeds over the pyloric antrum. Thus the most effective peristalsis is exerted over that portion of the stomach between the incisura and the pylorus. Thus when food is taken into the stomach it follows along the lesser curvature down to and filling the pyloric antrum first. At the same time the peristaltic waves take up and carry forward the gastric secretions which have gravitated to the most dependent portion of the stomach, thereby

Fig. 8. Retention pouch formed between stoma and pylorus.

Fig. 9. Six hour retention between stoma and pylorus.

thoroughly mixing them with the food stuffs, thus aiding digestion.

PHYSIOLOGICAL VIEWPOINT

Now let us view gastro-jejunostomy from this physiological angle. If the stoma is placed in the most dependent portion of the stomach, any gastric secretions that would tend to accumulate there would be slowly but continuously discharged into the jejunum, thus bathing that organ with an acid secretion. When food is taken into the stomach it passes along the lesser curvature filling the pyloric antrum, and if peristalsis is active, much of it will be forcibly packed into the antrum before the region containing the stoma is filled. If the pylorus is patent, most of this will be passed by that route. If the purpose of the operation was to put at rest an ulcer at or near the pylorus, and the pylorus is still patent, even if ever so little, the purpose will fail for most of the food will be passed through the normal opening. If, however, the pylorus is occluded any food that leaves the stomach must pass through the new opening wherever placed. But if this is placed in the most dependent portion of the stomach, or too far from the pylorus, the same peristaltic waves unaltered and uncontrolled by the operation will still press the food into the pyloric antrum. This will slowly but surely, as we have seen under the fluoroscope, distend the pyloric antrum forming a definite retention pouch. At first the stomach will be able to empty itself, but eventually it will not and the patient will have a return of the old symptoms of gastric distress and retention, and another case will be diagnosed a neuresthenia.

In order, therefore, to preserve, or restore, the gastro-intestinal tract to as nearly a normal physiological position and function as possible, it would seem to us that the stoma should be placed in the pyloric antrum and as near the pylorus itself as is consistent with good surgical technic in the given case. The pylorus should be found and used as a guide, instead of the first portion of the stomach picked up or that portion which would seem to be the lowest. During digestion the food in the pyloric antrum is always under tension and much of it would be passed out through a new opening, though the pylorus was patent. If the pylorus is closed, all the food would be passed without pathological delay and without a tendency to sacculation. Furthermore with the force exerted by the normal peristalsis in that region of the stomach there would be less tendency to contraction and stenosis of the stoma.

CONCLUSION

In conclusion we would urge first, that every case submitted to surgery for a possible gastro-enterostomy should first have a radiological examination to determine the size, shape and position of

the stomach, and second, to reiterate that the stoma should be placed in the pyloric antrum and as near the pylorus as possible.

BIBLIOGRAPHY

Note: This is by no means a complete bibliography on this subject. There are many other very valuable papers which were read but not quoted.

1. Mumford, James Gregory: Practice of Surgery; p. 134. W. B. Saunders Co., 1910.

2. Ochsner, Percy: New Manuel of Surgery; p. 474 Cleveland Press, 1915.

3. Howard, Russell: The Practice of Surgery; pp. 652-653. Lippincott, 1914.

4. Robson, Mayo: Keen's Surgery; Section on Surgery of the Stomach, Vol. III, p. 890. 1909.

5. Binnie, J. F.: Operative Surgery, 7th Edition; p. 371. Blakiston, 1916.

6. Balfour, Donald C.: Jr. A. M. A., Vol 83, No. 8, p. 603, Aug. 23, 1924.

7. Outland, John H., et al: Surgery, Gynecology and Obstetrics, Vol. 17, pp. 175-183. 1913.

8. Treves, Frederick: Manual of Operative Surgery, Vol. II, p. 437. Lea Brothers, 1892.

9. Ibid.

10. Ibid.

11. Case, James T.: Jr. A. M. A., Vol 65, pp. 1628-1634. 1915.

12. Mayo, C. H.: Collected Papers of Mayo Clinic, 1914, p. 101. Mayo, W. J.: Collected Papers of Mayo Clinic, 1905-1909, p. 85.

13. Hartman: Quoted by Ochsner, A. J., above; quoted by Mayo, C. H., above.

14. Ashhurst, A. P. C.: Surgery:—Principles and Practices, p. 880. Lea & Febiger, 1914.

15. Rose and Carliss: Manual of Surgery, 7th Edition, p. 1006. Wm. Wood & Co., 1918.

16. Palugyay, J. Abstracted in Jr A. M. A., Vol. 79, No. 20, p. 1726, Nov. 11, 1922.

17. Pirie, A. Howard: American Journal of Roentgenology, Vol. 9, pp. 358-359, June, 1922.

18. Carman, R. D.: The Roentgen Diagnosis of Diseases of the Alimentary Canal, 2nd Edition, pp. 378. 390. W. B. Saunders & Co., 1921.

19. Howell, W. H.: A Textbook of Physiology, pp. 707-714, 5th Edition. W. B. Saunders & Co., 1914.

20. Alvarez, W. C.: Am. Jr. Roentgenology, Vol. 10, pp. 31-35, Jan., 1923. Jr. Am. Med. Assn.: Vol. 78, pp. 1116-19, 4-15-22; Vol. 79, pp. 1281-85, 10-14-22; Vol. 79, pp. 1578-79, 11-4-22; Vol. 83, pp. 576-580, 8-23-24.

DISCUSSION

President Cunningham: The discussion of Dr. Curl's paper will be opened by Dr. Perry.

Dr. Gentz Perry (Kenosha): I feel that Dr. Curl is to be congratulated upon his courage in presenting this subject. The very excellent points that were brought out so nicely by the Doctor's paper and his slides show what some of you who have been doing x-ray work for some time have been inclined to feel and believe. Perhaps we haven't had the courage of bringing this before the surgeons as Dr. Curl has done so nicely.

Some years ago we heard a great deal of the expression of the formation of the so-called vicious circle that was supposed to be due to certain action following the gastro-enterostomy. The supposition of the vicious circle, if I comprehend the thing aright, was that the food passing through the gastro-enterostomy opening was gathered in the small bowel and more or less through an anti-peristalsis, forced backward around through the pylorus. Or, what was the most common view, finally the contents of the stomach passing through the pyloric opening were carried around through the small bowel and regurgitated again into the stomach through the gastro-enterostomy opening, through the artificial stoma that was formed. Personally, I have never been able to see any such action on any patient that I have examined by a gastro-intestinal examination. In other words, if such a vicious circle does exist, I never have been able to see it.

The very clear presentation of this subject, I believe clears up that point. The food retained in the stomach was accounted for this way. The clinical symptoms that existed in patients on whom gastro-enterostomies had been done, we believed, those of us who have been studying this from the x-ray standpoint, were due to the retention pouch formed distal to the artificial opening of the stomach, distal to the gastro-enterostomy stoma. This point is borne out by Dr. Curl's presentation of the subject from the roentgenological standpoint. I am sure that the surgeons will wish to discuss this paper, therefore I wish to be very brief. I should like to emphasize that point, that the vicious circle, or vicious circle that we have often heard spoken of, is probably a train of symptoms due to the fact that the gastro-enterostomy opening, which has been experimented in various ways and which prior to the time of x-ray studies could not be very well settled, was the faulty place. The stoma was in reality the cause of that serious train of symptoms. I firmly believe that Dr. Curl's idea is correct, and if put into effect would obviate this train of symptoms.

The matter of telling the surgeons what we think because we see these things with the x-ray is something that requires quite a lot of courage. I am sure we will all compliment Dr. Curl for bringing this point before us. (Applause.)

President Cunningham: This paper is open for further discussion. Dr. Curl, do you have anything more to say?

Dr. H. E. Curl: I have nothing more to add, except I would like to just point out that I do not know that this one thing is by any means all that may cause our gastro-enterostomy to go wrong. I merely mention this as one of the causes that may make a failure out of an operation.

Cholecystography; By the Oral Administration of the Sodium Salt of Tetraiodophenolphthalein*

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The following dictum is credited to Wm. Mayo: "When there is trouble in the right upper quadrant only a laparotomy will reveal the exact cause."

In the pre-roentgen days, then, the diagnosis of diseases in the right upper abdomen was limited to exploratory surgical operation. Except in the presence of calculi containing lime salts, roentgenology of the upper abdomen, for a time, was disappointing. With the use of opaque materials to visualize the gastro-intestinal tract, however, it became possible to make a non-surgical exploration of the abdomen by means of the roentgen ray.

In February, 1924, Graham and his associates[1, 2, 3, 4] perfected a method by which the gall bladder too may be explored without opening the abdomen. The visible gall bladder is the outstanding diagnostic achievement of the last two years.

Cholecystography is defined by Graham as a means of making the gall bladder opaque to the roentgen ray by administering certain substances which are excreted largely into the bile.

The object of this paper is to state the principles on which cholecystography is based and describe a simple, practical method of applying the test.

The physiologic principles on which this test is based are well established. The opaque shadow cast by the gall bladder is due to the halogen elements contained in the gall bladder bile. Rowntree and Abel's work, showing that practically all of the phenolphthalein compounds reaching the blood stream are excreted by the liver, paved the way for Graham's use of phenolphthalein as a vehicle to carry iodin and bromin through the liver cells to the bile ducts and gall bladder. The sodium salt of tetraiodophenolphthalein has been found to be the most satisfactory compound for this purpose, the ratio of opacity of the iodin salt to the bromin salt being approximately 2 to 1. (Whitaker and Milliken.[5])

Bile secretion is continuous. While digestion is in progress it flows directly to the duodenum by way of the hepatic and common bile ducts. During the interdigestive period the outlet of the common duct is closed by the sphincter of Odii and the gall bladder fills, acting as a reservoir. The storage capacity of the gall bladder is increased many times by its power to concentrate the bile as demonstrated by Rans, Peyton, and McMaster[6].

The gall bladder empties readily in response to certain food products and other substances reaching the duodenum, either through reflex or harmone action. It is advisable, at the beginning of the test, to empty the gall bladder of its concentrated, fasting period bile by giving a small meal containing fats. For obvious reasons no other food should be taken until satisfactory radiograms have been obtained; then a fatty meal may be given to demonstrate the emptying power of the organ.

The degree of opacity of the gall bladder shadow depends upon the amount of iodin in the bile and the depth of the layer of bile between the x-ray tube and the film. The following factors determine the amount of shadow producing iodin in the gall bladder: (1) dose of dye given, (2) rate of absorption, (3) rate of excretion by the liver, (4) iodin reaching the bile ducts during a digestive rest period, (5) intact sphincter of Odii, (6) patent cystic duct and gall bladder, (7) and the ability of the gall bladder wall to concentrate the bile. The thickness of the layer of bile between the tube and film depends upon the size and shape of the gall bladder and the amount of external pressure on it.

The following pathological conditions will interfere with the production of a normal gall bladder shadow: (1) Impaired liver function delaying or preventing the excretion of the dye; (2) obstruction of hepatic or cystic ducts, preventing dye from reaching the gall bladder; (3) partial or complete destruction of the gall bladder; (4) gall bladder filled with stones, sand, etc.; (5) decreased bile concentrating function due to disease (cholecystitis); (6) lack of filling of gall bladder due to relaxed sphincter of Odii; (7) rapid emptying of gall bladder from gastro-intestinal irritation.

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TECHNIC OF ORAL ADMINISTRATION OF DYE[7]

1. Preparation of patient: (a) A light, non-gas producing diet for two days before the test; (b) cleanse bowels without causing irritation. This may be done by giving 2 or 3 ounces of mineral oil at night followed by a normal salt enema the next morning.

2. Give a breakfast of cereal, cream, sugar, bread, butter, coffee or milk at *6 A. M.* on day of the test.

3. Dose of dye: Give 0.05 grams of the sodium salt of tetraiodophenolphthalein per kilogram body weight. The enteric coated pills and capsules on the market are a convenient and fairly satisfactory form in which to give the dye.

4. Time: Give the first capsules or pills two hours after the morning meal (8 A. M.) and repeat the dose every ten minutes for 5 or 6 doses. If it is more convenient to take the films early in the morning, give the meal and dye late at night.

5. Drink freely of water and lie on right side for two hours after taking first capsules.

6. No food should be taken until x-ray series is completed.

7. Dispense one or two ¼ gr. tablets of codeine to control any gastro-intestinal irritation that may occur.

8. Take films 6, 8, 10, and 12 hours after giving the dye, and another film two hours after a fatty meal to demonstrate emptying of the gall bladder.

9. Give a laxative after test is completed to prevent reabsorption of the dye.

COMPARISON OF METHODS

Intravenous—

1. Hospital procedure.
2. Impractical as a routine.
3. Local reaction.
4. Systemic reaction.
5. Contraindications: Cardiovascular diseases.
6. Accurate control of dose.
7. Distributed to whole body in general circulation.

Oral—

1. Office or hospital.
2. Practical.
3. Gastro-intestinal reaction.
4. None.
5. Active gastro-intestinal lesions.
6. No control over amount absorbed.
7. Goes directly to liver via portal vein.

APPEARANCE OF NORMAL GALL BLADDER

Casts a faint shadow in from 4 to 6 hours and a dense shadow between 7 and 12 hours.

Empties readily after a fatty meal.

Oval or pyriform in shape, regular in outline, and of a homogenous density.

Variation in size indicates normal distensibility and contractility.

Position varies with size and shape of patient.

EVIDENCES OF GALL BLADDER DISEASE

No shadow is cast if—

The liver function is impaired preventing dye excretion.

Gall bladder is shrunken and lumen obliterated.

Gall bladder is filled with stones, thickened bile, etc.

Mucous lining of gall bladder is destroyed.

Cystic duct is obstructed by stone, kink, pressure, etc.

Spasm of gall bladder or cystic duct (?).

A faint shadow is cast if—

The above factors are present to lesser degree.

Cholecystitis with partial destruction of mucous lining of gall bladder impairing its ability to concentrate bile (Mann[8, 9]).

Delay in filling and emptying of gall bladder.

Abnormal size, position or outline.

Unvarying size and outline indicates thickened wall with loss of distensibility.

Mottling or "negative shadows" (stones, papilloma).

USES

1. To study gall bladder physiology and pathology.

2. In differential diagnosis—

a. Gall stones from other calculi in right abdomen.

b. Gall bladder lesions from pyloric, duodenal, kidney, pancreatic, etc.

c. A diseased gall bladder from a functionally normal one displaced and distorted by adhesions.

3. A gall bladder functional test.

CONCLUSIONS

That cholecystography is a diagnostic method of proven value.

The oral administration of the sodium salt of tetraiodophenolphthalein is the safest and most practical method for routine use.

1. G. B. shadow of normal size, shape, position, outline, concentration for 8½ hours, and of homogenous density.

2. Normal G. B. deformed by pressure from without.

3. Normal gall bladder at 8½ hours.

4. Same as No. 3. Two hours later showing normal response to fatty meal.

5. Gall bladder deformed by adhesions. Normal function.

6. G. B. fixed at outer end of right c. m. by adhesions. Normal function.

7. G. B. showing "negative shadows" of several Cholesterin stones.

8. G. B. faintly visualized by dye occupying spaces between Cholesterin stones filling it. Well shown on original films.

The intravenous method should be reserved to check up doubtful cases.

BIBLIOGRAPHY

1. Graham, E. A., and Cole, W. H.: Roentgenologic Examination of the Gall Bladder, J. A. M. A., 82:613-614, Feb. 23, 1924.

2. Graham, E. A., Cole, W. H., and Copher, G. H.: Visualization of the Gall Bladder by the Sodium Salt of Tetrabromphenolphthalein, J. A. M. A., 82:1777-1778, May 31, 1924; Roentgenological Visualization of the Gall Bladder, Ann. Surg., 80:473, Sept., 1924; Cholecystography: An Experimental and Clinical Study, J. A. M. A., 84:14-16, Jan. 3, 1925; Cholecystography: The Use of Sodium Tetraiodophenolphthalein, J. A. M. A., 84:1175, April 18, 1925.

3. Copher, G. H.: Cholecystography, J. A. M. A., 84:1563-1564, May 23, 1925.

4. Moore, S.: Cholecystography, after the Method of Graham, Cole, and Copher, Amer. J. Roent., 13:515-527, June, 1925.

5. Whitaker, L. R., and Milliken, G.: A Comparison of Sodium Tetrabromphenolphthalein with Sodium Tetraiodophenolphthalein in Gall Bladder Radiography, Surg., Gyn., and Obstet., 40:17-23, Jan., 1925.

6. Rous, Peyton, and McMaster, P. D.: The Concentrating Activity of the Gall Bladder, J. Exper. Med., 34:47, July, 1921.

7. The oral administration first reported by: Menees, T. O., and Robinson, H. C.: Oral Administration of Sodium Tetrabromphenolphthalein, Preliminary Report, Amer. J. Roent., 13:368-369, April, 1925.

8. Mann, F. C.: A Physiologic Consideration of the Gall Bladder, J. A. M. A., 83:829-832, Sept. 13, 1924.

9. Bollman, J. L., Mann, F. C., and DePage, P.: The Effect of Specific Cholecystitis on the Bile-Concentrating Activity of the Gall Bladder, J. of Lab. and Clin. Med., 10:544-547, 1925.

DISCUSSION

CHAIRMAN CURL: I never knew until a few minutes ago that the third vice-president of this Society had any other function than to receive a little free stationery, but Dr. Cunningham has asked me to take charge of the meeting for a while.

Dr. Sanborn will open the discussion on Dr. Mackoy's paper.

DR. M. J. SANBORN* (Appleton): You have seen a very wonderful demonstration of one of the very latest diagnostic methods used by radiologists. It has certainly been a very fine demonstration. When we stop to think that the real value of the x-ray in diagnosis is the extension of our sense of vision, we can readily come to the conclusion that anything that will help us to more clearly visualize the gall bladder is a distinct advance in the diagnosis of gall bladder conditions. I feel that the future development of this method is not only going to help us to diagnose more accurately gall bladder pathology, but I think that taken together with tests such as Mann has made that the time is coming when we are going to be able to make a much earlier diagnosis of gall bladder trouble than we do at the present time. If that is true, and we can catch these conditions before they go on to the point where we are able to visualize the pathological gall bladder under the old detailed methods, it certainly will be of distinct advantage, not only to the diagnostician and the surgeon, but to the one whom it should be of the most advantage, the patient. I, personally, am looking for further development in this direction.

As to the methods, I heartily agree with the essayist that the oral method should be the routine method. I started out in my work with the intra-venous method and got along beautifully for five or six cases, and then I had a small leakage slough, and I guess a malpractice suit may follow that, but I hope not. Since then I have been using the oral method. The results have been, so far as I can see, practically identical. There is some delay, you don't get the secretion into the gall bladder, at least I have not quite so promptly gotten it as with the intra-venous method, neither have I seen any of the disagreeable reactions that we had in a few of our intravenous cases.

As the essayist said, there are very strong possibilities of being able to judge of the function of the gall bladder. The gall bladder, even though it may be mal-formed, that fills in the length of time it should, that empties when it should, that casts the kind of a shadow it should throughout, is certainly performing its function as a gall bladder, and whatever may be required in the way of surgery in that case we know that it ought not mean a removal of the gall bladder probably.

I do not feel that we are quite ready yet to discard the old method. I think until we are more familiar with what readings of our shadows gained by this method mean, and we must check it against the old method. Where we are able to show pathology with the old method let's see how that particular gall bladder looks with the new method. I think that we are coming to the time, and probably very shortly, when the one method will suffice. I think perhaps we are sometimes handicapped in our work by having the surgeon or the internist send the case to us and tell us what to do with it rather than having him send it to us and say he suspects the man has gall bladder disease, his diagnosis on the case is gall bladder and possibly something else, but we should make an x-ray examination. I feel if men referring cases to us would give us that latitude so that we could go ahead and make a gastro-intestinal examination, make the detailed gall stone plates by detailed methods, then by a cholecystography there would be a mutual satisfaction that would be to the interest of both the referring man and the roentgenologist, and most of all to the patient.

I certainly want to thank Dr. Mackoy for this very fine demonstration. I have seen none that was better, and I want to congratulate you on being able to have seen it. (Applause.)

CHAIRMAN CURL: Is there any one else who wants to discuss this paper?

DR. L. M. WARFIELD (Milwaukee): Mr. Chairman and Members of the Society: I don't wish to appear in

*Deceased, 1926.

the role of a pessimist or a kill-joy, and I realize perfectly well that the roentgenologists have got to live, but I think that we ought to bear in mind in our zeal for the development of new processes in diagnosis that the patient himself has to be considered.

Within the last few years that I have been in the practice of medicine I have seen the mounting costs to the patient, and it really has come to be a very serious problem. Another thing has impressed me, as I have been teaching and seen a great many hospitals teaching the development of all these new methods; however fine they may be, are we not losing sight of the fact that the history of medicine is full of diagnoses, accurate diagnoses, checked up at the postmortem table, made by men who didn't have all of these methods that we now employ. Don't misunderstand me, I don't for a moment say that these methods should not be employed in certain cases, for I think they should be, I think there do come times when we must employ them all. but I think we should sound a note of warning not to be too zealous and remember there are limitations in even the most apparently accurate type of diagnoses. Any one who has had a large postmortem experience has that brought home to him. We can not make diagnoses by mathematical formulae and that we must go back in the last analysis to the grey matter that is contained in our several erania.

This demonstration that Dr. Mackoy has just given us has been a beautiful demonstration; there is no question about it. I don't think I have ever seen more beautiful plates nor have I seen the gall bladder shown on lantern slides more clearly, and the negative value of this is evidently much more valuable than the positive evidence. So while I feel this is a method which is very interesting scientifically, nevertheless, I do feel that on the whole at this particular time we had better go just a bit slow. (Applause.)

Chairman Curl: Is there any one else? If not, we will ask Dr. Mackoy to close the discussion.

Dr. Mackoy: This method was not developed for the purpose of taking money out of the pockets of the general practitioner and diagnostician and putting it in the x-ray man's pocket, or for extracting money from patients. Its real purpose is to aid in the early recognition of a diseased condition that is often overlooked until the organ has been considerably damaged or entirely destroyed. Someone has said, "Gall stones are monuments erected to the memory of past infections." The presence of stone, then, is an admission that the infection was not detected in its early stages or, at least, was not cured. I prefaced my paper by the dictum of Mayo, who said that the only means at that time of making an accurate diagnosis of lesions in the upper abdomen was by surgical exploratory operation. I presented this method as a non-surgical means of exploring this region, and I have presented it in behalf of the patient, because it is less expensive for the patient to have a diagnosis made by this method, which is quite accurate, than by means of a surgical operation, which is not always inexpensive. (Applause.)

Myelography: A Radiographic Method to Demonstrate Obstructions of the Spinal Canal*

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Our neurological methods show that they are not always sufficient to determine the exact location, extension and nature of an obstruction of the spinal canal, which interferes with the functions of the spinal cord by compressing it from the outside, or by invasion of it. Deformities of the vertebral bodies, extra- or intradural hematomata, pachy- or lepto-meningitis, as well as the different tumors of the spinal cord and its appendages, may produce incomplete blocking of the subarachnoid space with variable clinical findings and negative x-ray pictures. If the neurological segmental diagnosis is confirmed by a xanthochrome or Nonne-Troin reaction, or by the x-rays, an early exploratory laminectomy is justified. We know that only too often our clinical methods are insufficient, especially when we consider that the symptoms of such obstructions are vague, and it often takes a long time for them to develop. Let us remember the statement of Frazier and Elsberg: That the time of the earliest tumor symptoms of the spinal cord until the possibility of exact location averages often from one to three years. During this long time irreparable degeneration of the cord elements may result. Therefore, every new method of clinical value, which hastens an early diagnosis of such obstructions, is worth while, and should be given consideration.

In 1919 Dandy[1] introduced a method to localize the lower pole of a spinal tumor by air injections by the aid of a lumbar puncture. This method, however, was unsatisfactory as the air cannot be plainly demonstrated in the spinal canal by x-ray pictures, and the described root pains mostly do not occur in our experiments.

*Presented before 79th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, Sept. 18, 1925.

In 1922 Sicard and Forestier[2] of France reported a new method for the early and exact diagnosis of obstructions of the spinal canal. They injected by different ways; that is, cisternal, lumbar and epidural an iodized oil called Lipiodol, which produced on the x-ray plate a distinct shadow above and below the obstruction. The high specific gravity of this oil allows it to sink down according to the position of the patient; that means from the cisterna cerebello-medullaris down to the cauda equina region if the patient is in a standing or in a sitting position, or from the lumbar or conus region upwards toward the medulla region, if the patient is put in Trendelenburg's position.

With this method they obtained favorable results which have been confirmed by American, English, French, and German authors. Sicard and others stated that the Lipiodol substance is harmless and does not irritate or damage the nervous tissue, nor the surrounding meninges or nerve roots as shown in more than 200 cases. Peiper[3] in Germany studied in a large series of rabbits the anatomical, physiological and pathological changes of an iodized oil called Iodipine upon the spinal cord, which was not done by the French authors.

Before we employ a new method in humans we must know the effect of such a substance in the spinal canal as it is deposited for a long time in a closed, sensitive system. What will be the result? Will it be only irritation of the meninges or cord elements, or will it be permanent damage? What will become of the injected oil? These are questions which Peiper doubtless solved in his animal experimentations: He found that especially the ganglionated cells of the anterior horns were affected. They show chromolysis and swelling with achromatosis, while the cells of the posterior horns were unchanged. It is very important to know that only some cells of the anterior horns are damaged while the rest are not at all affected. His pathological findings are similar to those following destruction of the axis cylinder from intoxications or lesions of the peripheral nerves. Besides these changes of the motor ganglion cells, Peiper further found, first, some degeneration of the fibre tracts on the surface of the cord without selection of certain tracts, and second, after weeks and months Marchi's degeneration of the posterior columns from the lumbar region upwards to the medulla. These pathological changes are produced by the toxic effect through absorption of iodized oil by the lymph vessels. The pathological findings in animals after intra-arachnoid injections of iodized oil have to be considered as possibly developing in humans as well, though they have not been reported as yet.

At the Wisconsin Psychiatric Institute we studied the intra-arachnoid injections with Iodipine, obtained from Merck and Company, New York. This was used by Peiper. It is the product of chlorin-iodin and oil of sesame, and is a compound of the unsaturated fatty acid and iodin. The 40 per cent concentration of Iodipine has a yellowish-brown color and a specific gravity of 1.475, which means that in 1 c.c. of this solution there are 0.51 gm. of iodin. Considering the difference in specific gravity of Iodipin, 1.475, and spinal fluid, averaging 1.006, it is easy to be understood that the Iodipin sinks quickly in the vertical spinal canal.

Up to the present time we have had 18 cases in which this method of diagnostic assistance was employed. In every case we injected 2.0 c.c. of Iodipine into the intra-arachnoid space, high above the obstruction by puncture of the cisterna cerebello-medullaris. This puncture between the atlas and occiput was introduced by Ayer, Wegeforth and Essick[4] of Boston in 1914; subsequently the technic has been perfected by Eskuchen of Munich in 1920.

TECHNIQUE

The technique of cisterna puncture is as follows: The patient is seated in a chair, his head resting on his forearms, which are bent over the back of the chair, while an assistant holds the head fixed. After the usual method of surgical preparation of the area from the external occipital protuberance to the seventh cervical vertebra, two landmarks for orientation must be used. The first should be the occipital protuberance, and the second, the spinous process of the epistropheus. The posterior tubercle of the atlas cannot be palpated distinctly while the spinous process of the second vertebra is prominent. Then the puncture needle should be pushed between these two landmarks, exactly in the midline through skin and muscles until the occiput is reached, usually at a depth of from 4.5 to 6.0 cm. By slightly raising the free end of the needle and slowly pushing it forward the bony borderline of the foramen magnum is reached, and, by pushing the needle forward, the atlanto-occipital membrane

and the dura can be distinctly felt and punctured. After the occipital membrane has been perforated the needle should be pushed forward gently, not more than 0.5 cm. The needle is now in the cisterna. Usually only from 2.0 to 4.0 c.c. of spinal fluid is obtained, never such amounts as procured by lumbar puncture, and very often it is necessary to aspirate slowly with a syringe as the pressure in the cisterna is usually negative. The cisterna varies from 0.5 to 1.5 cm. in depth. Therefore, the puncture needle should never be pushed in farther than 6.0 to 7.0 cm. from the skin, and it is advisable to have the needle plainly marked at this point so as to prevent injury to the medulla. Therefore, if the first attempt is unsuccessful, the needle should be withdrawn and the entire procedure repeated. The puncture needle must be guided with the utmost care and precision. This can be accomplished by supporting the fingers on the neck and shoulders. After 2.0 c.c. of spinal fluid has been withdrawn an equal quantity of Iodipine should be injected very slowly. The oil must be free from air bubbles because otherwise it will sink too slowly. It is never advisable to withdraw more spinal fluid than the amount of oil to be injected, because it is not desirable to change the pressure relations in the areas to be studied.

The needle should be held in place some time after the Iodipin has been injected, thus giving the oil the time necessary for its distribution. Finally, after the needle has been withdrawn, the patient should sit up a few minutes and his head should be moved gently, or the cervical region should be slapped to prevent fixation of oil in the cisternal space, in the ligaments, dentates or between the nerve roots. Normally the oil sinks quickly, and reaches the cauda equina after two or three minutes, depending upon the size of the subarachnoid space and the amount of spinal fluid in the canal. It will be arrested totally or partly according to the size and nature of the obstruction in the spinal canal. The first x-ray film should be made five minutes after the puncture while the patient is lying with head and shoulders slightly elevated, and should include the entire spinal column. Ventro-dorsal and lateral views should be made. If all the Iodipine is found in the cauda equina after five minutes, or at the time of the first picture, then we conclude that there is no obstruction in the passage of this substance between the meninges and the cord. If, on the other hand, all the Iodipin is not found in the cauda at the time of the first picture then it is necessary to make a series of exposures from the second to the tenth day after the injection. Large pearls of Iodipin may be temporarily arrested; if these disappear on the second day they have no pathological significance. On the other hand, if the Iodipin is permanently arrested, one is justified in assuming the existence of a pathological process and in considering surgical intervention even though there are no distinct neurological symptoms.

Arrest of Iodipine around the location of the injection as well as small pearls in different areas of the spinal canal is of no significance. Sometimes small droplets of oil are arrested on both sides of the spinal cord which Sicard explained by calcification of the dura. On its way downward the Iodipine is not always in one mass, but disperses between the lymph-spaces of the sheaths of the spinal nerves or forms on both sides of the cord, the above mentioned chains of oil pearls. Complete blocking of the spinal canal usually produces a dense shadow of the injection mass which is convex along its upper border in the mid-line with typical arms extending downward on both sides. Cases with chronic pachy-meningitis or with meningeal adhesions, show irregularities of the x-ray shadow with isolated accumulations of oil at various levels over the diseased area. Depending upon the strength of the connective tissues of terminal portion of the dural sac, the heavy oil will distend it, casting a globular shadow, or merely filling it, in which case its true conical shape will be apparent. Tumors of this area are not so easily diagnosed by oil injection.

Besides the recognition of tumors, adhesions and compressions, Iodipine injections are of great value for the differential diagnosis of vertebral fractures with or without cord lesions or hemorrhages, thereby assisting greatly in determining the course of action in regard to surgical interference.

Irritation after these injections does not always occur, and when seen, they are only transitory. This irritation is similar to that observed after a lumbar puncture, and consists of headaches, slight meningism, and rise of temperature on the second day without increase of the pulse rate. If the Iodipine is arrested by an obstruction in the subarachnoid space, typical root pains may occur at this level. These disappear after aspirin or morphine therapy. Only in advanced cases of loco-

motor ataxia did we observe severe shooting pains, bladder and rectal disorders after the Iodipine injections, lasting from eight to fourteen days.

The iodized oil remains for a considerable time in the subarachnoid space or in the cauda equina. It is absorbed by the lymph vessels after it has been saponified by the alkaline spinal fluid into a whitish substance. We never observed any clinical effects from the deposited Iodipine in the cauda equina. According to Sicard it is possible to withdraw the iodized oil from the lower end of the subarachnoid space, but this we have found unnecessary.

DISCUSSION

Chairman Curl: The discussion will be opened by Dr. B. B. Rowley, of Milwaukee.

Dr. B. B. Rowley: The use of iodized oil for the localization of the spinal cord lesions is a fairly new procedure, that is, it was instituted in the latter part of 1921 by Sicard of Paris, and has been reported in French, English and American literature since that time. It has been subjected to rather careful scrutiny as to the possible unfavorable results of introducing a foreign body into the cerebrospinal space, but I think it is quite conclusively proven that there are absolutely no unfavorable results caused by the use of iodized oil for the localization of spinal lesions. It is not so much a new method of diagnosis and localization as it is a new aid in the localization.

If we remember that Dr. Dandy states that ninety per cent of cases of spinal cord tumor can be localized definitely and very distinctly by careful history and by a careful neurological examination, it can be seen that it is only in the unusual case of spinal cord lesion that the use of iodized oil for its localization is necessary. There it is of undoubted value. We see cases where, for the reason that there is no sensory level, or there are no localizing atrophies and paralyses, or where the diagnosis is difficult to make between a spinal cord tumor and a transverse spinalitis, the use of iodized oil is of undoubted value. It is in particular also in the early cases of spinal cord tumors, where the diagnosis is of particular value in order that the surgeon may go in and remove the tumor before irreparable damage to the spinal cord has resulted, that it is of use.

Frazier has stated that the average time necessary or usually taken for the diagnosis of a spinal cord tumor is two and three-fifths years, and it is during this first two years, or during the first year that the best possible prognosis is to be gained following surgical intervention. So any method that can help us toward the early diagnosis and localization of spinal cord tumors is very valuable.

There is one other point, and that is that it helps us in the localization of the spinal cord tumor in relation to the vertebra. Where we diagnose and localize a spinal cord tumor from the clinical symptoms, from the sensory level, from the level of motor loss, that localization is segmental, that is, we localize the legion as affecting a certain segment of the spinal cord, but that segment of the spinal cord does not correspond to the vertebra. So it is of a good deal of help to the surgeon who is going to perform the laminectomy to know just where the upper level of this tumor is in respect to the bony vertebra. There are some sources of error, particularly in the interpretation of the rays as we find them following the use of iodized oil. Sicard has warned us that if any air is injected with the oil, it is very likely to give us false localizing signs. With the great benefit to be derived in certain picked cases from this clinical procedure, and with the knowledge that it is not going to do the patient any harm, it is certainly of a great deal of benefit and is comparable to the value of ventroculography in the lines of transfusion. I think we are particularly fortunate in having Dr. Reese with us, because he has had particular experience, clinical experience in the use of iodized oil and in the interpretation of the picture as he sees it following its use. (Applause.)

Chairman Curl: The paper is now open for discussion. If anyone else has anything they would like to say, we will be glad to hear from them.

Dr. Lorenz: I think Dr. Reese is to be congratulated upon the use of the new method, certainly his technic is very painstaking. His results prove it, and I feel certain that the method will be more and more used, because a surgeon is frequently confronted with this situation that there is a tumor of the spinal cord suspected. The neurologist will hazard an opinion as to what segment may be concerned, and then a laminectomy is proposed, and only too frequently after this rather drastic operation one fails to find the tumor.

After all, if one gets positive evidence such as can be had by this method, it makes the surgical procedure much more certain, much more satisfying, and I think also the patient will get better service. Of course, this holds good—that it hasn't the same negative value that it has positive value. One can't conceive of an intermedullary tumor that might not impede or affect the iodine solution, but when positive evidence is so positive and so definite as an aid to a neurological diagnosis, it is invaluable in my opinion. (Applause.)

Chairman Curl: Is there anyone else? Have you anything to say, Dr. Reese, in closing?

Dr. Reese: No, thank you.

BIBLIOGRAPHY

1. Dandy, W.: Ann. of Surgery. 7:5, 1918; Dandy, W.: Johns Hopkins Hosp. Bull.: 30:29, 1919; Dandy, W.: Surg., Gynecol., Obstetr.: 30:329, 1920; 31:340, 1920.

2. Sicard and Forestier: Bull et mém. de la soc. med. des hôp. de Paris 38:10; 1922; Sicard and Forestier: Presse méd. 31:44, 1923.

3. Peiper, H., and Klose, H.: Arch. f. Klin. Chir. 134:2-3; 1925.

4. Ayer, J. B.: Arch. Neurol. and Psych. 4:529 (Nov.) 1920; Wegeforth, P., Ayer, J. B., and Esick, C. R.: Am. J. M. Sc. 157:789 (June) 1919.

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

The Family Physician's Duty

BY JOHN P. KOEHLER, M.D.
Commissioner of Health
Milwaukee

Through the efforts of public health authorities and the medical profession, it has been possible to gradually reduce the general death rate as well as the infant mortality rate very markedly. In 1880 the average age of all individuals that died was 18 years. In 1925 the average length of life was 54.

We have every reason to feel encouraged by the results obtained, but no reason whatsoever for feeling that this improvement will continue much longer, unless the family physician assumes more responsibility for the application of preventive measures in the future than he has in the past. Every conscientious private physician will work day and night, if necessary, to keep his sick patients from dying. The sicker they are, the harder he works to save them. A system of medicine that waits for people to get deathly ill before giving its best efforts, can never accomplish as much as one that works as hard to prevent disease as it does to cure it.

It is true that the public is more to blame than the doctors for the small amount of preventive work done by the medical profession, but we believe that the time has come when the family physician should no longer depend upon his Health Department alone to educate his families to accept preventive treatment. It is true that snatching patients from the very threshold of death is more spectacular and, therefore, more appreciated by the public, nevertheless, it is the duty of the family physician to keep his families well, whether his efforts are appreciated and adequately paid for, or not.

A good family physician should feel just as badly when some of his people develop a preventable disease, as a good clergyman would feel when members of his flock are convicted of crime. The primary function of each should be to prevent and not to treat. The question might be asked at this point, just how people can be made to accept preventive measures.

We realize that very few people want anything to do with a doctor when they are well. They haven't as yet been educated sufficiently to realize that many of the ailments to which they are subject, can be prevented by their family physician. If they once realize that a very large percentage of their physical, as well as their mental, ailments can be entirely prevented by their family physician, we feel certain that they will not only be more willing to pay for preventive treatment, but also more able.

Of course, no physician can hope to sell a preventive program to his people, until he himself is convinced that such a program will prevent disease and deaths. When a physician actually believes that disease can be prevented and death postponed, he will no longer wait for his families to come to him for treatment, but he will feel it his duty to go after them, even though he might be accused of selfish and mercenary motives.

One of the first duties of the family physician in preventive medicine is to vaccinate against small pox. The Health Department alone can never keep a city vaccinated against smallpox without the help of the family physician. Every city has periodic smallpox epidemics because it failed to protect itself by having all of its citizens vaccinated regularly. The only time the Health Department can obtain very many vaccinations among school children is when a case of smallpox develops in the school.

Because nearly every one in Milwaukee was vaccinated during last year's smallpox epidemic, we have not had a case of smallpox in Milwaukee for almost an entire year. While we feel quite proud of such a good smallpox record this year, nevertheless, we feel certain that the absence of smallpox will make people forget all about vaccination, and eventually Milwaukee will be ripe for another smallpox epidemic.

What every community needs is a law requiring that all children must be vaccinated before entering school. Until such a law is passed, it will be

the duty of every family physician to see to it that every baby under his care is vaccinated during the first year of life.

Not only should children be vaccinated against smallpox during infancy, but they should also be given toxin-antitoxin for the prevention of diphtheria. Most of our diphtheria deaths are in children under five years of age.

We believe, therefore, that any physician, who has a case of smallpox or diphtheria in an infant or young child in one of his families that employs him regularly, must assume some of the blame unless he has urged parents of such children repeatedly to accept the well-known preventive measures for these diseases. When a family physician attends the birth of a child, his responsibility towards that child does not end at the end of ten days or two weeks, as so many physicians seem to believe; such a child many times is in greater need of medical supervision during the first ten months of life than it is during the first ten days.

Another disease that is almost impossible to control without the assistance of the family physician, is whooping cough. The tendency usually is to give the family the benefit of the doubt and not report a case as whooping cough until it has all of the typical symptoms, instead of giving the public the benefit of the doubt by reporting it as a whooping cough suspect in order to isolate it early. Since the State Health Laws require that a whooping cough case be quarantined for six weeks from date of report, it is a distinct advantage to the patient as well as to the family to have whooping cough reported early. In case of a wrong diagnosis due to early reporting, the Milwaukee Health Department permits the physician on the case to change his diagnosis any time during the first two weeks after date of report. The family physician more than anyone else is able to impress upon the mother of a child with whooping cough, the necessity of keeping such a child away from well children.

The family physician can also prevent many deaths from tuberculosis by making chest examinations often, of all persons with a tubercular family history, with a history of pneumonia and with suspicious symptoms of tuberculosis. Too many physicians still fail to realize that they more than anyone else are responsible for an early diagnosis of tuberculosis. If as much time and effort were given to the early diagnosis of tuberculosis as is given to acute diseases, we would not have our sanatoriums filled with advanced cases of tuberculosis.

PERIODIC EXAMINATIONS

There are many other ailments and diseases which can be prevented, or at least controlled by the family physician, if he keeps his patients under close supervision. Every individual should have at least one complete medical examination per year. Some physicians even laugh at individuals who come in for an examination when they have no symptoms of illness, others make only a very superficial examination because they feel so certain that there can't be much wrong with a person who feels perfectly well.

When the family physician believes in annual medical examinations, preaches it to his following, practices it on himself and family and is ready to give complete thorough medical examinations for a reasonable fee, then he will be a real power in the field of preventive medicine and accomplish much more than public health officials could ever hope to do.

Progress in Preventive Health Work in the future will depend more than ever upon the family physician. Will he assume his responsibility?

The Privately-Owned Water Supplies in the City of Racine; A Re-Survey of Privately-Owned Wells and Springs Originally Surveyed in 1925

BY W. W. BAUER, M.D.
Commissioner of Health
Racine

Survey data and water analysis records pertaining to the private wells and springs in the city of Racine were published in the April, 1926, Wisconsin Medical Journal. The following is a brief statement of the results of the second inspection and water analysis upon the same group of wells.

We found 218 wells at the time of the first survey, of which six were not in use, leaving 212 as actual sources of private or semi-private water supply. Of these, 66 were found safe in the first analysis and 146 unsafe.

1926 RE-SURVEY OF PRIVATELY-OWNED WELLS FIRST SURVEYED IN 1925

	Safe	Unsafe	Abandoned
a. Wells found safe in 1925....	57	4	5
b. Wells found unsafe in 1925..	100	33	13
c. Wells found since 1925 survey	12	2	
d. Total wells, 1925 survey....	66	146	
e. Total wells, 1926 survey....	69	139	
f. Percentages 1925 survey....	32%	68%	
g. Percentages 1926 survey....	33%	67%	

For the purposes of this re-survey, the wells have been grouped according to the condition of their water in 1925. Of those found safe, practically all were again found safe in 1926, only four being found unsafe, while five had been abandoned.

On the other hand, 100 of the wells found unsafe in 1925 were found safe in 1926, while 13 had been abandoned, leaving only 33 findings in this group which confirmed the analyses of last year.

Fourteen additional wells were discovered in the year which elapsed since the 1925 survey, most of these being located in basements and other places not accessible to the ordinary survey inspection. These were brought to our attention by requests for water analyses growing out of the publicity attaching to the general survey. Eliminating 18 abandoned wells and adding 14 new ones, we have 208 wells now in use in this city. Of these 69, or 33%, may be regarded as safe, while 67% must be classified as unsafe. This classification is based upon the results of at least two examinations, and no well has been regarded as safe if it has ever shown an analysis in which evidence of pollution appears.

The important feature about this re-survey is that the group of safe wells established in 1925 remains practically intact, the variation as shown in the table being only 1% between 1925 and 1926.

THE JOURNAL CLINIC

Giant Appendix or Mucocele*

BY NORBERT C. TRAUBA, M.D.
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Reports of these cases in the literature are not rare, but perhaps a review of the symptoms caused by mucocele, in an effort to aid in the diagnosis of this condition, may justify this report.

S. Simon in the Deutsche Zeitschrift für Chirurgie, Vol. 187—1-14 (1924) reviews the literature and summarizes nine cases, mostly from German and English sources, including the case reported by Nash in the British Medical Journal, to which reference will be made later. He adds a case of his own in which the mucocele was found in three separate sacs connected by pedicles.

He states that Maydl in Allegemeine Wiener Medizinische Zeitung, 1896—465, gives the following as symptoms of mucocele:

"Regularly recurring attacks of colicky pain, at first diffuse and then becoming localized over the region of the appendix, with increasing severity, and then quickly subsiding spontaneously at the height of the attack, without vomiting, fever, or other external manifestation, and without external cause."

Simon states, further, that these symptoms hold true only for early mucocele, but that the later stages usually go undiagnosed.

Differential diagnosis must be made from gall bladder and adnexal conditions, from retroperitoneal hernia, as well as from the usual causes of right sided abdominal pain. Although the majority of cases are found in females, yet they have been reported in males also.

He suggests as the cause of the symptoms given above, the occlusion of the lumen of the appendix leading to organization and encapsulation, with periodic efforts to expel the contents.

The complications to be feared are: Invagination, volvulus or hernia, and for this reason operative intervention is indicated.

W. G. Nash in the British Medical Journal, Nov., 1919—595, reports a case of giant appendix 17.7 cm. in length and 19 cm. in circumference—

*From the Surgical Service, Wisconsin General Hospital, Madison.

(7 inches long and 7½ inches in circumference and weighing 8¼ ounces). The appearance is described as follows:

"Macroscopically: Surface—Dull white in color, smooth, except for shallow subcircular pits. Wall of sac 0.7 cm. in thickness.

"Microscopically: There are parallel lamellae of dense fibrous tissue with moderate number of flat connective tissue corpuscles uniformly distributed between the fibers. The cells increase in number towards the inner aspect, where there are, in addition, larger groups of lymphocytes in the clefts. The innermost zone is devoid of all nuclei and is necrotic. There is no epithelial lining. There is mucin next to the necrotic layer and there are calcareous nodules in the mucin. At the proximal end of the specimen there was noted some cecal mucous membrane."

The case which we wish to report is a mucocele taken from Mrs. A. S., age 43, a white American housewife, slightly obese and of somewhat florid complexion. She was admitted to the Wisconsin General Hospital on 3-4-26, complaining of abdominal distress of four days' duration. Previous to this attack, there had been similar attacks since July, 1925. This attack differed from the previous ones in that she was suddenly seized with a very severe pain in the mid-epigastrium sufficient to cause her to double up. There was no fever and she vomited only once. The leukocyte count dropped from 15,000 on 3-3-26, to 6,400 on 3-4-26, with a normal differential count. The urine showed a trace of albumen.

A diagnosis of cholecystitis with cholelithiasis was made and on 3-8-26 Dr. E. R. Schmidt, through a right rectus incision, found and removed a chronically diseased gall bladder and accidentally discovered the appendix described below. The appendix was removed and with the gall bladder submitted for histological examination. The gall bladder showed chronic cholecystitis.

The appendix had a dull white color and the surface was smooth.

Dimensions: Length 4¼ in. (10.7 cm.); circumference 4½ in. (11.5 cm.).

Microscopic appearance described by Dr. E. M. Medlar as follows:

"The lumen of the appendix is markedly distended with mucoid material free from cellular content. It is evidently the retained secretion of the secretory epithelium of the mucosa. The mucosa is absent from approximately three-fourths of the section and in the remainder is represented by a single layer of flattened epithelial cells. There are no glandular structures. The glands and epithelial cells covering the lumen have largely undergone pressure atrophy and necrosis. There are present in the submucosa, which is greatly thinned out by stretching, a moderate number of lymphocytes. There is also moderate lymphocyte infiltration of the inner portions of the muscular coat. The muscular coat is distinctly hypertrophied.

"It would seem that this condition could be accounted for by a stricture in the proximal portion of the organ with resulting accumulation of secretion and compensatory hypertrophy and hyperplasia of the smooth muscle."

The severe seizure of pain in this case was probably of appendiceal origin, as is suggested by Simon's theory and the histological findings.

SUMMARY

The chief symptoms, the probable cause, and the complications of mucocele are quoted.

In addition, the histologic picture of a mucocele described by Nash is quoted.

A mucocele with microscopic and macroscopic description is reported.

ETIOLOGY AND TREATMENT OF PERNICIOUS ANEMIA

Though the causes of pernicious anemia are not yet fully known, clues to their nature are being obtained. In any consideration of etiology, Lewellys F. Barker, Baltimore (Journal A. M. A., July 10, 1926), says due attention should be paid to the peculiarities of incidence and distribution of the disease; to the fact that it is predominantly a malady of middle and later life; to the characteristic features of the blood picture and their relations to blood destruction within phagocytes and to blood regeneration of embryonal type; to the associated disturbances of the digestive, nervous and endocrine systems; to certain special marks in the bodily configuration; to the occurrence of spontaneous and of therapeutically inducible remissions of variable duration, and to the inevitability, in the present state of knowledge, of a fatal termination. Of the many conceptions of etiology that have been advanced, the evidence at present favors hereditary (genotypic) predisposition as the main factor and various influences in the external conditions (especially poisons derived from bacteria, fungi or animal parasites in the digestive tract) as accessory releasing or provocative factors. Parallel with the growth of hypotheses of etiology, conceptions of pathogenesis are being extended; the causes of the disturbance of equilibrium between the blood destruction and blood regeneration (and their antecedents) are becoming clearer; the anemia is recognized as only one part of a comprehensive disease entity in which the digestive system, the nervous system, and the endocrine system are also involved, and investigators are now striving to establish correlatives among the various phenomena observable and to find the precise place in the malady as a whole that should be assigned to each integral part. Treatment of the disease though not curative is rewarding. Through rest, the administration of dilute hydrochloric acid and of arsenic, injections of blood and other measures, the patient's condition can often be greatly ameliorated, and in many instances remissions of variable duration may be induced. Early recognition of achylia, paresthesias glossitis, and of megalocytosis (before anemia develops) may permit of prompt treatment that will tend to keep the malady latent. Intermarriage of members of families in which the disease is known to occur should be discouraged.

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There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Inquiries.* Any inquiry with reference to pharmaceuticals, surgical instruments or any other manufactured product which you may need in home, office, sanitarium or hospital, will be promptly answered. Address all inquiries to Wisconsin Medical Journal, or write direct to Cooperative Medical Advertising Bureau, 535 North Dearborn Street, Chicago, Illinois. The Bureau is equipped with catalogues and price lists and can supply information by return mail.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

ORIGIN OF GASTRIC AND DUODENAL ULCER

THE conditions which lead to the development of the chronic peptic ulcer have for years been a riddle. Many investigators have offered various explanations to account for it, but no one has been satisfactory, or has explained most of the cases. The fact that it has been practically impossible to produce the typical punched-out chronic ulcer in animals has hindered investigators. Hence most authors have fallen back upon arterial lesions either atherosclerotic or due to bacterial thrombi to account for the loss of substance and the resulting digestion of dead tissue which then produces the ulcer. The chronicity has been hard to explain and also the cessation of symptoms in spite of the continuance of the ulcer.

The question has been investigated anew by H. Puhl* who has studied intensively the material from the Surgical Clinic at Kiel. Upon this fresh material he has had opportunity to study the changes in the mucosa as it was in the living subject. According to Puhl erosions of the mucous membrane are common lesions. They are inflammatory and may produce symptoms which are quite like those of gastric ulcer. Erosions occur in folds of the mucous membrane in the antrum and from there into the duodenum. He shows beautiful microscopic figures of the epithelial defects with mucus and pus streaming out like smoke from a volcano. Covering the erosions are often fibrinous exudates. There is then acute inflammation. In certain sites and under certain conditions, not entirely clear, one or several of these erosions become transformed into an ulcer.

He has been able to follow all stages, at times in one stomach specimen, from the simplest erosion of the mucous membrane to the full-blown chronic ulcer. In every resected portion of stomach or of duodenum he never failed to find numerous erosions usually arranged in the normal folds of the stomach or duodenum. In the stomach near the fundus the erosions tend to be circular while in the region of the pylorus they are linear.

According to Puhl every case of gastric or duodenal ulcer is preceded by chronic gastritis or duodenitis which is characterized by the erosions spoken of above. Furthermore erosions are present in practically every stomach, but inflammation is not present. In certain cases healing of innumerable erosions produces atrophy of the mucous membrane but even with the resulting achylia, exacerbations of an existing ulcer may occur. The unevenness of the folds of mucous membrane is the basis for the chronic gastritis. This gastritis is not accompanied by symptoms except in rare cases. Symptoms occur only when inflammation attacks one spot to such an extent that an ulcer forms.

This is a new conception of the origin of the gastric and duodenal ulcer. It remains to be seen whether others will be able to confirm Puhl's careful studies.—L. M. W.

*Hugo Puhl: Concerning the Significance of Inflammatory Processes for the Origin of Gastric and Duodenal Ulcer. Virchow's Archiv., 260:1, 1926.

CRIME, LAW AND THE MEDICAL PROFESSION

"WITH public opinion concerned as it has seldom been over the country's apparent failure to deal effectively with crime and criminals, the proceedings of the criminal law section of the American Bar Association this year carry an unusual appeal to the lay mind. The address of its chairman in particular strikes forcibly upon the mind of the ordinary citizen, who harbors a deepening conviction that at least some of the responsibility for the appalling frequency of crimes of violence rests with the courts."

The above paragraph is part of an editorial appearing in a recent issue of the Wall Street Journal. It is indeed significant that an editorial with such a trend should appear in an exclusively financial journal. However, this significance is intensified when one realizes that editorials of a similar trend have been appearing frequently in the editorial columns of many other daily papers and periodicals, to say nothing of longer and argumentative articles appearing in both medical and legal journals.

After so much contumely and criticism has been heaped upon expert medical testimony, it is indeed refreshing to find the public beginning to realize that there is also something wrong with the courts. The medical profession fully realizes the weak points in expert medical testimony; but most of the criticism of such testimony could be readily remedied if the medical profession were met half-

way by the legal. It seems to us that Dr. William A. White has sounded the keynote when in an article on "Insanity and Crime" he makes the statement "that all machinery of the courts is antiquated and no longer competent to serve twentieth century needs. We have got to fit our solutions to the times."

For the first time in two hundred years an intelligent and concerted effort is being made by both legal and medical professions to get together in this matter, and the effort of the medical profession is ably set forth through conclusions reached by a committee of the American Psychiatric Association, published at length in the present issue of this Journal. A. W. R.

A NEWER KINDLINESS

WE received a call from an extraordinarily intelligent professional man in whom the diagnosis of a tuberculous kidney had recently been made and surgical removal prescribed. He had been doing a tremendous lot of thinking and studying on tuberculosis in the few days before he saw us because, as he said: "I suppose a man is lucky to have two kidneys so that one may be more or less safely removed. But I trust you won't blame me for a desire to know as exactly as I can where I am at before I give up one-half of an absolutely indispensable mechanism." But it is not of that aspect we started primarily to write. The most interesting thing about his case was the fact that, as a child, he had had tuberculosis which had left him with an absolutely stiff joint and he had never suspected, until his kidney became tuberculous and the diagnostician told him of the likelihood that he had had tuberculosis as a child.

"I suppose," he said, "the doctor who treated that joint must have known I had joint tuberculosis, but he never told me. He's dead now and so I cannot check up on him. But it does seem to me that if I had known and been properly warned, I might have done more to build up my resistance and thus, perhaps, have avoided this new outcropping of a possible smouldering infection.

"For one thing, I don't believe I would have put ambition for business success on quite so high a pedestal. I've driven hard; worked long hours and taken few vacations. Didn't know I had any particular reason for living more rationally. Now I know—probably too late for the best possible use of the knowledge.

"I suppose that doctor of twenty-five years ago was trying to be kind to me and my family by withholding an unpleasant truth. If so, I'm not going to insult his ashes; but one of the things that has impressed me during my present situation is that the various physicians I have come in contact with have been frank and honest. They have told me their unpleasant truths in a manner that showed steady nerves that are comparable, I suppose, with those of the surgeon who proposes to take out half of my indispensable urinary mechanism. I'd like to be able to express my appreciation of the newer and more genuine kindliness of the modern physicians of the better sort."

And that is why the above was written and is published here.—H. E. D.

WORKING FOR YOU

LAST week members from Sheboygan, Rice Lake, Tomah, Oshkosh and Milwaukee met to discuss the subject of legislation. In Madison, members met to complete plans for the Annual Meeting. In Milwaukee another committee submitted recommendations for changes in the laws governing commitment of the insane. A fourth group was working on a revised constitution. And during the same week one officer of the State Society was in Eau Claire while a second was in Janesville, Chicago, Elkhorn and Madison. All were working in the interest of each individual member of the State Medical Society of Wisconsin.

There is no organization so thoroughly democratic, so intent on representing the group opinion, or so truly interested in the welfare of its membership as the State Medical Society of Wisconsin. Once a year the opportunity is presented for all the members to meet together to hear a carefully planned scientific program, to determine the policies of the group for the succeeding year, to renew old acquaintances and to enjoy the making of new ones. The member who attends the Eighty-Fifth Anniversary Meeting at Madison next month will feel a pride in his membership and in the work his Society is accomplishing in his behalf, and for the public as a whole.

AMERICAN BOARD OF OTOLARYNGOLOGY

The next examination given by the American Board of Otolaryngology will be held in Denver, Colorado, at the University Hospital on Monday, September 13, 1926. Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

THE PRESIDENT'S PAGE

Joseph F. Smith

THE EXECUTIVE SECRETARYSHIP

Four years ago, the House of Delegates of our State Medical Society decided to employ a full time Executive Secretary. Two other states had previously taken this action and the success and satisfaction which they had with this arrangement encouraged our Society to adopt this plan. Since that time, eight or nine other states have adopted the plan in one form or another and several other states have similar plans under consideration.

Prior to that time a physician elected by the House had served the Society with little or no compensation, keeping its records and carrying on the large amount of necessary correspondence, often without clerical help and at great personal sacrifice of time and energy. The Society owes a lasting debt of gratitude to those physicians who served the Society long and faithfully in this capacity. Their work formed the foundation upon which our present organization is being built.

The present Executive Secretary has served the Society continuously since the adoption of this plan. His work and the progress of our Society during this time has attracted attention outside the state. National organizations have tried to secure his services and our Council has felt it proper to increase his salary on two occasions.

Our Society finances are now being run on the budget plan, the amount of money to be used for the various activities being appropriated by the House of Delegates and expended under the supervision of the Council.

A few of the many important things accomplished by the Society under the full-time secretaryship may be briefly mentioned:

1. The Wisconsin Medical Journal has been improved, enlarged and made more nearly self sustaining.
2. The county societies have been visited and their meetings fostered by assisting them in getting program material.
3. District societies have been developed throughout the state during the last year.
4. Hygeia is being presented by the Society to 300 laymen.
5. An annual "lay" issue of the Wisconsin Medical Journal has been issued and sent to approximately 9,000 persons in the state.
6. A weekly service of carefully prepared health articles for every daily newspaper and 140 weekly papers in the state is provided.
7. A manual on "The Early Diagnosis of Cancer" and one on "Periodic Examinations of Apparently Healthy Persons" have been sent to every member of the Society.

These are only a few of the outstanding activities carried out by the Society under the guidance of our full-time Secretary.

We now have a paid membership of approximately 2,000 at $9.00 each, making $18,000.00 available each year for carrying on the work of the Society and publishing the Journal. Some state societies with a larger membership raise a greater total amount on smaller dues. Several societies with a membership comparable to ours pay higher dues—Minnesota, for instance, has an annual membership fee of $15.00. We need a slightly larger annual budget to carry on the work of the Society with reasonable certainty. The addition of $1.00 to our present membership fee, making the dues $10.00 without medical defense and $12.00 with it, would place the Society in a position to carry on the work in hand with more comfort and greater efficiency than on our present budget. This proposition will probably be made in the House of Delegates at the next Annual Session at Madison and I believe it will meet the approval of the delegates and of the membership at large.

Surely, no one who has taken the time to familiarize himself with the work of the Society and of its Executive Secretary will wish to limit or hamper in any way this work, much less to recede in any degree from the present high standard of our Society's activities.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1926

JOSEPH F. SMITH, Wausau, President
CARL HENRY DAVIS, Milwaukee, 1st Vice-President
W. E. FAIRFIELD, Green Bay, 2nd Vice-President
W. D. STOVALL, Madison 3rd Vice-President
ROCK SLEYSTER, Wauwatosa, Treasurer
Mr. J. G. CROWNHART, Executive Secretary 153 Oneida St., Milwaukee

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TERM EXPIRES 1930
3rd Dist., C. A. Harper - - - Madison
4th Dist., W. Cunningham - Platteville

TERM EXPIRES 1931
5th Dist., O. B. Bock - - - Sheboygan
6th Dist., F. G. Connell - - - Oshkosh

TERM EXPIRES 1926
7th Dist., Edward Evans - - LaCrosse
8th Dist., T. J. Redelings - - Marinette

TERM EXPIRES 1927
9th Dist., Joseph Smith - - - Wausau
10th Dist., R. E. Mitchell - Eau Claire

TERM EXPIRES 1928
11th Dist., J. M. Dodd - - - Ashland
12th Dist., Hoyt E. Dearholt - Milwaukee

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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

County	President	Secretary
Ashland-Bayfield-Iron	C. O. Hertzman, Ashland	R. L. Gilman, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	C. C. Post, Barron	D. L. Dawson, Rice Lake.
Brown-Kewaunee	F. J. Gosin, Green Bay	F. M. Harris, Green Bay.
Calumet	J. A. Schmidt, Brillion	H. C. Krohn, New Holsteln.
Chippewa	L. A. Larson, Colfax	C. A. Cooper, Colfax.
Clark	F. D. Jackey, Thorp	F. P. Neis, Thorp.
Columbia	A. F. Schmeling, Columbus	H. E. Gillette, Pardeeville.
Crawford	W. W. Coon, Gays Mills	T. E. Farrell, Seneca.
Dane	Louis Fauerbach, Madison	R. B. Montgomery, Madison.
Dodge	J. F. Brown, Waupun	A. A. Hoyer, Beaver Dam.
Door	John Hirschboeck, Forestville	T. C. Proctor, Sturgeon Bay.
Douglas	V. E. Ekblad, Superior	E. E. Carpenter, Superior.
Eau Claire and Associated Counties	G. W. Beebe, Eau Claire	H. M. Stang, Eau Claire.
Fond du Lac	M. M. Scheid, Rosendale	D. N. Walters, Fond du Lac.
Grant	E. C. Howell, Fennimore	M. B. Glasier, Bloomington.
Green	J. L. Fleck, Brodhead	J. F. Mauermanu, Monroe.
Green Lake-Waushara-Adams	B. E. Scott, Berlin	A. J. Wiesender, Berlin.
Iowa	A. D. Brown, Mineral Point	M. W. Trentzsch, Highland.
Jefferson	W. C. Becker, Watertown	A. C. Nickels, Watertown.
Juneau	C. A. Vogel, Elroy	A. T. Gregory, Mauston.
Kenosha	W. C. Stewart, Kenosha	H. A. Binnle, Kenosha.
La Crosse	Sigurd Gunderson, La Crosse	N. P. Anderson, La Crosse.
La Fayette	H. B. Moe, Blanchardville	W. W. Peck, Darlington.
Langlade	E. G. Bloor, Antigo	J. C. Wright, Antigo.
Lincoln	E. K. Morris, Merrill	W. H. Bayer, Merrill.
Manitowoc	C. L. R. MacCollum, Manitowoc	L. J. Moriarty, Two Rivers.
Marathon	E. M. Macauly, Wausau	J. M. Freemau, Wausau.
Marinette-Florence	T. J. Redelings, Marinette	M. D. Bird, Marinette.
Milwaukee	S. J. Seeger, Milwaukee	E. L. Tharinger, Milwaukee.
Monroe	H. B. Johnson, Tomah	H. H. Williams, Sparta.
Oconto	C. W. Stoelting, Oconto	R. S. Elliott, Gillett.
Oneida Forest-Vilas	C. D. Packard, Rhinelander	I. E. Schlek, Rhinelander.
Outagamie	C. Reineck, Appleton	E. L. Bolton, Appleton.
Pierce	G. M. Dill, Prescott	Rolla Cairns, River Falls.
Portage	G. H. Lawrence, Stevens Point	F. R. Krembs, Stevens Point.
Price Taylor	L. S. Dietrich, Medford	E. B. Elvis, Medford.
Racine	H. B. Keland, Racine	Susan Jones, Racine.
Richland	H. C. McCarthy, Richland Center	G. Benson, Richland Center.
Rock	E. B. Brown, Beloit	G. K. Wooll, Janesville.
Rusk	L. M. Lundmark, Ladysmith	H. C. Johnson, Bruce.
Sauk	H. J. Irwin, Baraboo	Roger Cahoon, Baraboo.
Shawano	A. J. Gates, Tigerton	C. E. Stubenvoll, Shawano.
Sheboygan	A. J. Knauf, Sheboygan	Howard Curl, Sheboygan.
St. Croix	F. S. Wade, New Richmond	O. H. Epley, New Richmond.
Trempealeau Jackson Buffalo	H. A. Jegl, Galesville	R. L. MacCornack, Whitehall.
Vernon	H. J. Suttle, Viroqua	Wm. H. Remer, Chaseburg.
Walworth	A. M. Lelaud, Whitewater	Carroll Rice, Lake Geneva.
Washington-Ozaukee	C. A. Balkwill, Grafton	A. H. Heldner, West Bend.
Waukesha	Thomas Miller, Oconomowoc	S. B. Ackley, Oconomowoc.
Waupaca	T. E. Loope, Iola	A. M. Christofferson, Waupaca.
Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis	Madison, Sept. 17-18
Medical Examiners	R. E. Flynn, La Crosse	Milwaukee, October; Madison, Jan. 11, 1927.

COUNCILOR DISTRICT MEETINGS, 1926

First (Dodge, Jefferson, Waukesha)	1927.
Second, (Kenosha, Racine, Walworth)	Racine
Third (Dane, Columbia, Green, Rock, Sauk)	1927.
Fourth (Crawford, Grant, Iowa, LaFayette, Richland)	Lancaster, August 31.
Fifth (Calumet, Manitowoc, Sheboygan, Washington-Ozaukee)	1927.
Sixth (Brown-Kewaunee, Door, Outagamie, Fond du Lac, Winnebago)	1927
Seventh (Juneau, La Crosse, Monroe, Vernon, Trempealeau-Jackson-Buffalo)	La Crosse, 1927
Eighth (Marinette-Florence, Oconto, Shawano)	1927.
Ninth (Clark, Green Lake-Waushara-Adams, Lincoln, Marathon, Portage, Waupaca, Wood)	Wausau, Sept. 30.
Tenth (Eau Claire and Associated, Chippewa, Pierce, Rusk, St. Croix, Barron-Polk-Washburn-Sawyer-Burnett)	Eau Claire, Fall
Eleventh (Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas, Price-Taylor)	
Twelfth (Milwaukee)	Fall

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society held its annual picnic at the Pine Beach pavilion, Marinette, on Wednesday afternoon, July 21st. The physicians were asked to provide masquerade baseball suits and at three o'clock a thrilling game was staged. Drs. E. V. McComb and W. S. Jones, Menominee, Mich., and Dr. C. H. Boren, Marinette, were in charge of the sports and had arranged a fine program. Supper was served at five-thirty to a large group of members, their wives and friends.—M. D. B.

PRICE-TAYLOR

A picnic for the physicians and dentists of Price and Taylor County Medical Societies, with their families in attendance, was held at Worcester Lake on Monday, June 21st. Inclement weather prevented many from attending, but a large number braved the elements and had a most enjoyable get-together meeting. A bounteous lunch was served and each one present made an after-dinner speech, Dr. L. S. Dietrich of Medford presiding. A short business session followed the supper and it was decided to hold another gathering some time in the fall.

—E. B. E.

MILWAUKEE NEURO-PSYCHIATRIC

Dr. Arthur W. Rogers, Oconomowoc, was elected president of the Milwaukee Neuro-Psychiatric Society at the Athletic Club, Milwaukee, on June 24th. Other officers are: Dr. D. W. Roberts, vice-president; Dr. W. T. Kradwell, secretary and treasurer; Drs. B. M. Caples and H. W. Powers, councilors.

DODGE

About twenty physicians of the Dodge County Medical Society met in the pergola at the Lutheran Deaconess Hospital, Beaver Dam, on Thursday evening, July 15th. The meeting was opened at 8:00 by Dr. J. F. Brown of Waupun, president of the society, and the Rev. L. C. Kirst gave the address of welcome, and in his remarks incorporated his belief of the possibility of a larger hospital for Beaver Dam in the near future.

The speakers on the scientific program consisted of Drs. Marsh, Barlow and Brown of the Jackson Clinic, Madison. Dr. H. E. Marsh spoke on "The Treatment of Edema with Novasurol;" Dr. R. A. Barlow presented a paper on "Atrophic Rhinitis and Its Treatment," and Dr. D. A. Brown's subject was "Hypertrophied Prostate." Following the addresses, the physicians discussed the subjects of the speakers which proved highly instructive and beneficial. Although no definite date was set, it was decided that the physicians would have their wives present at the next meeting.—A. A. H.

PIERCE-ST. CROIX

A joint meeting of the Pierce and St. Croix County Medical Societies was held at River Falls on June 17th. The speakers of the afternoon were Dr. R. C. Buerki, superintendent of the Wisconsin General Hospital; Dr. Erwin Schmidt, Professor of Surgery of the University of Wisconsin Medical School, and Dr. R. C. Blankinship, Professor of Medicine of the University of Wisconsin Medical School. The meeting was well attended.

NINTH COUNCILOR DISTRICT

The summer meeting of the Ninth Councilor District Medical Society was held at the Public Library at Waupaca at 3:00 p. m. July 21st. Dr. Otto H. Foerster, Milwaukee, presented a paper on "Lesions of the Skin with Special Reference to Venereal Diseases;" Dr. Stephen E. Williams, Chippewa Falls, on "Some Experiences with Periodic Health Examinations;" and, Dr. Joseph F. Smith, President of the State Medical Society, spoke on "The Use of Iodin in the Treatment of Goiter." A general discussion of the subject of "Periodic Health Examinations" followed the conclusion of the program.

RUSK

The members of the Rusk County Medical Society met at the Ladysmith Hospital on Wednesday evening, June 9th, for a supper meeting. The evening was devoted to a talk by Mr. J. G. Crownhart, secretary of the State Society, in which he explained the organization work and aims of the State Society.—H. C. J.

THIRD COUNCILOR DISTRICT

Over one hundred members in the Third Councilor District territory attended the annual councilor district meeting held at the Wisconsin General Hospital on June 30th. The program opened at 9:00 a. m. with the following:

Morning: "Diagnosis and Treatment of Some of the Common Fractures," Dr. F. J. Gaenslen, orthopedic surgeon, University Medical School; "A Discussion of Certain Phases of Dry Surgery," by Dr. Edwin Schmidt, professor of surgery, University Medical School; "Skin Diseases with Special Relation to the Venereal Disease Problem," by Dr. Otto H. Foerster, Milwaukee.

During the noon hour the members had luncheon in the hospital immediately after which Dr. Joseph F. Smith, Wausau, president of the State Medical Society, spoke on the subject of "Periodic Examinations of the Apparently Healthy Persons."

The afternoon program follows: "The Treatment of Pyloric Stenosis and Allied Conditions," by Dr. Joseph Brennemann, Chicago; "Recent Advances in the Diagnosis of Scarlet Fever," with demonstrations of the Dick and Schick reactions, Dr. W. D. Stovall, director State Laboratory of Hygiene; "Cause and Treatment of Rheumatism," by Dr. Robert A. Van Valzah, University Medical School; "Cholecystography," by Dr. R. C. Blankinship, University Medical School.

The following physicians registered their attendance: Drs. L. W. Sayles, Baraboo; G. D. Beech, Adams; F. A. Thayer, Beloit; E. B. Brown, Beloit; J. W. Keithley, Beloit; V. D. Crone, Beloit; F. W. Leeson, Beloit; C. H. Beadles, Beloit; M. A. Cunningham, Janesville; Fred B. Welch, Janesville; Frank Nee, Spring Green; A. C. Helm, Beloit; H. M. Helm, Beloit; Lindley V. Sprague, Madison; Louis Fauerbach, Madison; H. E. Gillette, Pardeeville; G. F. Treadwell, Friendship; B. J. Wadey, Belleville; C. A. Harper, Madison; R. C. Hartman, Janesville; E. M. Poser, Columbus; A. F. Schmeling, Columbus; C. W. Henney, Portage; K. A. Snyder, Portage; A. J. Allen, Beloit; P. A. Fox, Beloit; F. E. Brinckerhoff, Beloit; R. C. Aylward, Madison; E. P. McQuillin, New Glarus; L. M. Field, Beloit; Karl K. Amundson, Cambridge; S. J. Francois, New Glarus; Wm. F. Whyte, Madison; G. W. Henika, Madison; H. M. Guilford, Madison; J. F. Mauermann, Monroe; H. E. Kasten, Beloit; F. W. VanKirk, Janesville; W. F. Clark, Janesville; F. W. Boots, Briggsville; Otho A. Fiedler, Sheboygan; Howard Curl, Sheboygan; M. V. DeWire, Sharon; A. M. Carr, Madison; E. J. Mitchell, Broadhead; J. P. Guilfoyle, Evansville; S. W. Forbush, Orfordville; G. E. Crosley, Milton; Geo. E. Coon, Milton Junction; B. W. Shaw, Waunakee; H. K. Tenney, Madison; J. R. Harvey, Footville, Wm. A. Mowry, Madison; W. B. Gnagi, Monroe; N. Omsted, Stoughton; Arthur J. Batty, Portage; J. R. Kellogg, Portage; A. Rowley, Middleton; A. W. Rogers, Oconomowoc; Jas. C. Hassall, Oconomowoc; G. W. Fifield, Janesville; Orrin J. Overton, Janesville; W. B. Monroe, Monroe; H. A. Sharpe, Verona; H. H. Reese, Madison; H. Sylvester, Madison; T. W. Nuzum, Janesville; F. B. Farnsworth, Janesville; W. A. Munn, Janesville; H. W. Buckner, Mt. Horeb; L. A. Moore, Monroe; W. C. Maas, Rio; W. G. Bear, Monroe; C. M. Smith, Evansville; Geo. W. Belting, Orfordville; C. A. Wood, Albany; Albert Tormey, Madison; R. Van Valzah, Madison; B. L. Cleary, Edgerton; W. H. McGuire, Janesville; F. Binnewies, Janesville; James A. Jackson, Madison; Arnold S. Jackson, Madison; W. A. Pease, Rio; Norman Nelson, Madison; F. T. Gorton, Portage; K. L. Puestow, Madison; J. H. Bertrand, De Forest; E. F. Schneiders, Madison; Alton Ochsner, Madison; J. A. Mudroch, Columbus; G. R. Bayer, Madison; S. I. Morris, Madison; C. A. S. Gunderson, Madison; R. L. McIntosh, Madison; C. S. Allen, Madison, and Mr. J. G. Crownhart, Milwaukee.

The councilor for the Third Councilor District is Dr. C. A. Harper, Madison.

TREMPEALEAU-JACKSON-BUFFALO

The members of the Tri-County Medical Society, comprising Trempealeau-Jackson-Buffalo counties, enjoyed their annual boat ride July 15th on the Mayo yacht, North Star. The physicians and their wives boarded the boat at Wabasha, Minn., rode up the river, cruising around Lake Pepin before the return trip was made. Dr. Joseph F. Smith, president of the State Society, and George Crownhart, executive secretary, also attended the cruise. R. L. MacC.

ROCK

The Rock County Medical Society met on Tuesday evening, July 27th, at the Grand Hotel, Janesville. Dr. Chester M. Echols, Milwaukee, presented a paper on "Uterine Hemorrhage" and Dr. Homer M. Carter, Madison, spoke on "Pediatric Clinics of Europe."—G. K. W.

FIFTH COUNCILOR DISTRICT

Close to two hundred members and their wives in the Fifth Councilor District met at Elkhart Lake on July 1st and 2nd for the first annual Fifth Councilor District meeting. The first day was given over to sports, recreations and a general get-to-gether. At 6:30 a banquet was served at the Elm Park Hotel for the members and their wives. Following the banquet, Dr. O. B. Bock, councilor, introduced Dr. Joseph F. Smith, president of the State Medical Society, who addressed the members on the subject of "Periodic Examinations of the Apparently Healthy Persons." Dr. Bock then introduced Dr. Morris Fishbein, Chicago, editor of the Journal of the A. M. A. and Hygeia. Dr. Fishbein had the members and their wives in almost continuous gales of laughter with his witty remarks on "The Humor in Medicine."

On July 2nd the scientific program was opened at 9:00 a. m. by Dr. Herman L. Kretschmer, Northwestern University, Chicago, on "Diseases of the Kidney." Other papers during the morning were: Dr. Joseph L. Miller, Rush Medical College, Chicago, "The Pulpless Tooth;" Dr. Edward L. Miloslavich, Marquette University, Milwaukee, "Pathology of the Innocent Appearing Appendix." After the noon luncheon Dr. Karl W. Doege, Marshfield, spoke on "Present Day Diagnostic Therapeutic Problems of Cancer;" Dr. Erwin Schmidt, University Medical School, "Surgical Treatment of Chronic Adhesive Pericarditis;" Hon. Reuben G. Knutson, member Wisconsin Industrial Commission, Madison, "Relation of the Physician to Practice Under the Compensation Act."

Dr. O. B. Bock, Sheboygan, is councilor for the Fifth Councilor District.

Members of the district desiring the panorama picture illustrated here may order it direct from the Wisconsin Medical Journal by enclosing check for $1.25.

NEWS ITEMS AND PERSONALS

Dr. Edward T. Evans has left for New York City to enter the Hospital for the Ruptured and Crippled. He has been doing fracture and orthopedic work at La Crosse since his return from Europe a little over a year ago. Dr. Evans is expected to resume his practice in that city following his twelve months' residency at New York.

The Rock County Medical Milk Commission met at Janesville city hall on July 13th. The session was addressed by Prof. W. D. Frost, bacteriologist of the University of Wisconsin Department of Agriculture, on the subject of "Production of Certified Milk".

Dr. and Mrs. Homer M. Carter, Madison, have just returned from a two months' tour of Europe. They visited the main clinic centers of the continent as members of the Interstate Post-Graduate European Assemblies.

Dr. John Monstead, son of Dr. and Mrs. J. W. Monstead, New London, will become associated with his father in the practice of medicine at that city. He has recently completed a three years' internship at the County Hospital, Wauwatosa, and is a graduate of the Marquette University Medical School, Milwaukee.

At a recent meeting of the Cook County Hospital Alumni Association the following officers were elected for the ensuing year: Dr. George F. Thompson, '99, president; Dr. Harry Culver, '13, vice-president; Dr Dorrin F. Rudnick, '22, secretary-treasurer, all of Chicago. The officers elected for the year 1927 were: Dr. William Cubbins, '00, president; Dr. Ralph Hamill, '02, vice-president; Dr. Dorrin F. Rudnick, '22, secretary-treasurer, all of Chicago.

The Wisconsin members who were present at the annual banquet consisted of: Drs. E. W. Bentzien, Milwaukee; R. M. Carter, Green Bay; C. M. Echols, Milwaukee; J. W. Fisher, Milwaukee; C. W. Henny, Portage; G. J. Kaumheimer, Milwaukee; Julian Marks, Milwaukee; Aubrey Pember, Janesville; E. W. Quick, Milwaukee, and K. A. Snyder, Portage.

The Cook County Hospital Alumni Association is an organization consisting of men who have passed a competitive civil service examination and have served an internship of eighteen months in the Cook County Hospital at Chicago. The purpose of the organization, in a general way so far, has been sort of an annual reunion and friendship get-to-gether. It also has given opportunity yearly, to pay honor to some of the men who since leaving the hospital have brought illustrious credit upon themselves and the medical profession.

Miss Mildred A. Elson of the Boston Hospital, an expert in hydrotherapy, has been engaged to help crippled children of Wisconsin regain the use of their arms and legs. She will be attached to the staff of the Wisconsin General Hospital to direct the corrective work with children afflicted by infantile paralysis. The children will be housed in three cottages adjoining the hospital.

Dr. Richard Evans, Chicago, has left for Santa Barbara, where he will be assistant manager of Santa Barbara Cottage Hospital, in charge of the laboratory research work. He is the son of the late Dr. J. M. Evans, who for many years was one of Evansville's leading physicians. Dr. Evans was graduated from the University of Wisconsin and later from Rush Medical College. Since then he has served as an intern in Washington Boulevard Hospital, Chicago, and later remained as house physician, also acting as the chief surgeon of the Chicago, Milwaukee and St. Paul Railroad.

Dr. F. C. Christensen, Racine, has recently announced the removal of his office to suite 201-202, Hotel Racine. He was formerly at 2250 Kinzie Avenue.

Dr. L. A. Larson, Colfax, found a rare curiosity in the form of a petrified human head at Albertville recently, while hunting for boulders. The features are plainly discernible, even to the lines of the veins on the temples. The doctor has placed it in the public library at Colfax for exhibition.

Dr. Louis Milson, who has been house physician at St. Mary's Hospital, Green Bay, has announced that he will enter private practice of medicine and surgery. His new office is at 205 N. Washington St., Green Bay. Dr. Milson is a graduate of Marquette University Medical School, through which he earned his way.

Dr. John McCabe, Dr. Paul Brehm and Dr. S. A. Wolter were named by Health Commissioner John P. Koehler as full-time resident interns at Emergency Hospital. They succeed Dr. E. J. Craite, Dr. J. F. Jenner and Dr. Sylvester Zintek, who have been part-time interns.

Dr. R. H. Miller, instructor in surgical anatomy at the University of Tennessee at Memphis, is spending two months at Burlington to fill the vacancy in Dr. J. F. Bennett's office caused by the departure of Dr. J. A. Butzer. The new assistant will not be able to remain with Dr. Bennett permanently, however, as he still retains his position in the southern university and must report there for the fall semester.

Dr. Oscar F. Guenther, graduate of the University of Wisconsin and Marquette University Medical School, has established himself in the practice of medicine and surgery with Dr. H. Johnstone Weld at Camphellsport.

Dr. J. P. Canavan, Neenah, succeeds Dr. M. N. Pitz of that city as physician for the Aerie of Eagles. Dr. Pitz resigned his position recently after eight years of service with the order.

The staff of nurses of the Milwaukee County Dispensary held a reception for all nurses, physicians and social service workers on July 14th, on the occasion of their taking over an additional floor of the Saxe Building, Milwaukee. The dispensary now occupies the entire second and third floors of the building.

Dr. Charles F. Harris, formerly of Bayfield, has established his practice at Rhinelander.

Dr. Howell Randolph, a graduate of the Johns-Hopkins University at Baltimore, has joined the Post-Coleman Clinic of Barron for a period of two months.

The distinction of being a member of a group of American physicians and surgeons to be presented to the King, Queen, and Crown Prince of Belgium, was brought to Dr. and Mrs. H. A. Robinson of Kenosha while at Brussels, Belgium, recently. Dr. Robinson is on a post-graduate tour with a group of physicians from this country.

Dr. L. M. Warfield, Milwaukee, has opened a special heart clinic at the County Dispensary. The clinic will be held for an hour every Tuesday morning. The dispensary also opened the first of two post-graduate courses in medicine and general surgery. These courses, the first in the history of the Dispensary, are of three weeks' duration.

Dr. C. L. Johnson of Columbus, Ohio, has become associated with Dr. G. F. Wakefield, West Salem. Dr. Johnson has been the house physician in a hospital at Columbus for some time. Dr. D. H. Jeffers will continue his practice at West Salem until Dr. Wakefield returns from his vacation.

Dr. William J. Carson, formerly Associate Professor of Pathology and Instructor in Genito-Urinary Surgery, University of Maryland, has just announced the opening of an office at 809 Goldsmith Building, Milwaukee. Dr. Carson will limit his practice to Genito-Urinary Surgery.

Dr. G. W. Carlson, who has been associated with Dr. V. F. Marshall since coming to Appleton about three and one-half years ago, has formed an association with Dr. E. F. McGrath of that city. Dr. Carlson returned recently from a sojourn in Colorado.

After holding three examinations to select a qualified psychiatrist, the committee on county institutions approved the appointment of Dr. Roy E. Bushong of Boston, Mass., to the post of director of the mental hygiene clinic of the Milwaukee County Dispensary. Dr. Bushong was one of a group of twenty men who was recommended for the position. He is a graduate of the Ohio State University Medical School in 1911. The new director will assume charge of the mental hygiene clinic within a month at a salary of $6,000 a year.

A committee of Milwaukee psychiatrists, Drs. D. W. Roberts, Rock Sleyster and B. B. Rowley, examined the applicants.

Dr. John Ver Meulen, Waupun, has entered the field as a candidate for the seat to be vacated by Congressman Edward Voight, of the second congressional district.

Dr. R. D. Jamieson, La Crosse, who for the past twelve years has been associated with the Henke Clinic, has taken offices at Racine, where he intends to establish his practice in the future.

Dr. F. P. Gaunt, Milwaukee, has resigned as medical director of the Emergency Hospital, a position he held only four months. He has accepted a position with the medical department of the Milwaukee Electric Railway and Light Company.

Dr. K. P. Ruppenthal, Milwaukee, has announced recently the opening of offices at Husher, Wisconsin. Dr. Ruppenthal will take over the former practice of Dr. Schreiber now of Milwaukee.

Dr. R. E. Hickey, formerly of Bessemer, Mich., relieved Dr. E. F. Thompson as medical superintendent of the Contagious Disease Section of the Milwaukee Health Department on August 1st.

ENGAGEMENTS

Mr. Jesse George Crownhart, Milwaukee, to Miss Hildegarde Wooll, Janesville.

MARRIAGES

Dr. Roy M. Greenthal, Milwaukee, and Miss Jean Mack were united in marriage on July 7th.

Dr. Vincent J. Shippy of Pulaski and Miss Josephine Slupinski were married at Green Bay on June 29th.

DEATHS

Dr. Robert B. Cunningham, Cadott, died at St. Joseph's hospital in that city on Sunday morning, July 4th, after an illness of two and a half years. With the illness making rapid inroads, he continued his practice until about two years ago. Born in Wurtemburg, Pa., on June 9, 1872, Dr. Cunningham was graduated from Louisville Medical College in 1894 and from the University of Louisville School of Medicine in 1898. He established his practice in Cadott at the age of twenty-one years.

Dr. Cunningham was president of the village of Cadott for twenty-five years and was appointed as a member of the State Board of Medical Examiners in 1919 and served in such capacity until 1925 when his term expired and his health would not permit a continuation in that position. He is survived by his mother, his wife, a daughter and a son, Dr. Robert D. Cunningham, who succeeds him in his practice at Cadott.

The doctor was a member of the Chippewa County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. Laurel E. Youmans, Mukwonago, Waukesha County, died at Milwaukee hospital, Milwaukee, on July 7th. He was born in February, 1863, and entered the University of Wisconsin from which he was graduated in 1887. Having decided to become a physician he enrolled at Rush Medical College, Chicago, and completed his course of study at that institution in 1890. He obtained his Wisconsin license the same year, returned to Mukwonago and associated himself with his father, the late Dr. H. A. Youmans, who died in 1893. Succeeding to his father's practice, he spent thirty years in strenuous country practice until the outbreak of the World War.

Although only a few weeks' under the age limit, he

enlisted in the medical service and served at Camp Oglethorpe, Camp Grant and Fort Sheridan. At Camp Grant he was in charge of the pneumonia ward during the severe epidemic prior to the close of the war. He was discharged in 1919, but after his return to Mukwonago, resumed his practice in only a limited way. Following the death of his wife in 1923, he spent a year with his son, Dr. John B. Youmans of the University of Michigan. Dr. Youmans continued to make his home at Mukwonago until about ten weeks ago when he went to Milwaukee hospital and remained a patient there until his death.

Dr. Youmans leaves two sons, Dr. John B. Youmans, assistant professor of internal medicine at the University of Michigan, and Henry A. Youmans, city editor of The Freeman, Waukesha, and one daughter. He was a member of the Waukesha County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. Richard W. Taylor, Pewaukee, died suddenly late Friday afternoon, July 2nd, following a busy day spent in the discharge of his duties. Dr. Taylor was born at Delafield, September 17, 1851, and was graduated from the General Medical College, Chicago, in 1893. With the exception of the years spent in college and a short time at Bradley, South Dakota, his entire life has been lived in the Waukesha County community.

Dr. Taylor was formerly a member of the Waukesha County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association. Surviving him are his wife and a daughter.

Dr. Reimer N. Nintzel, Oshkosh, died Thursday night, July 8th, at his residence. The doctor maintained a down-town office until eight years ago, and until a few months ago, conducted an office at his home. Dr. Nintzel was born in Schleswig-Holstein on July 8, 1836. He was a graduate of the University of Kiel, Germany, in 1865 and served as city physician of Oshkosh for a number of years.

Dr. Flora A. Read, Elgin, Ill., died at the home of her brother in that city. Dr. Read was a practicing physician at Fond du Lac for about twenty years until five years ago when she retired from active practice because of ill health. She was born in the year 1864 and was a graduate of the Northwestern University of Chicago in 1895. Until her retirement in 1921, she was a member of the Fond du Lac County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. Godfrey F. Shimonek, died on June 27th at the home of his son-in-law at Yonkers, N. Y. Dr. Shimonek practiced medicine and surgery in Wisconsin for forty years, twenty-eight in Milwaukee. His earlier practice was in Beaver Dam. He was born in 1852 and was graduated from Rush Medical College in 1873, doing post-graduate work at Bellevue Hospital Medical College in 1874, and at Prague, Vienna, in 1881.

Dr. Shimonek was professor of surgery in the Milwaukee Medical College, president pro tem of Wisconsin State Medical Society during 1895, second vice-president in 1896, and president of the Milwaukee Medical Society in 1902. He was one of the collaborators of the Clinical Review and one of the founders of the Wisconsin Medical Journal. Surviving him are his wife and three daughters.

Dr. Edgar S. Cristman, Barron, was stricken with a cerebral embolism and died at his home Tuesday afternoon, July 13th. Dr. Cristman was born near Spring Green in the year 1878 and received his medical education at Milwaukee Medical College, graduating in 1902. He established his first practice at Spring Green, later moving to Almena, Barron County, where he made his home for twenty years, until his removal to Barron in 1923.

Dr. Cristman was a member of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife and two daughters.

Dr. Claude F. Ray, Milwaukee, died at his home on Sunday, July 4th. Dr. Ray was born in 1869 and was a graduate of Milwaukee Medical College in 1900. He is survived by his wife, one son and two daughters.

SOCIETY RECORDS

NEW MEMBERS

Alvarez, R. L., Galesville.
Heyer, Oscar C., Reedsburg.
Cunningham, R. D., Cadott.
Weston, Frank L., 166 Lakewood Blvd., Madison.
Karsten, John H., Horicon.
Stevens, John V., Janesville.

CHANGES IN ADDRESS

Hanko, J. E., Loganville, to Cazenovia.
Gilman, R. L., Ashland, to Medical School, Univ. of Penn., Philadelphia.
Evans, E. T., La Crosse, to 342 E. 42nd St., New York City.
Merten, A. N. E., Brumder Bldg., Milwaukee, to 4050 Plankinton Bldg.
Hovde, A. G., Hollywood, Calif., to Board of Trade Bldg., Superior.
Johnson, J. E., Coon Valley, to 127th St. and Lexington Ave., New York City.
Griswold, C. M., Clintonville, to Oostburg.
Clark, I. F., Eau Galle, to Wauzeka.

CORRESPONDENCE

NURSES TO MEET

July 3, 1926.

Mr. George Crownhart,
Milwaukee, Wisconsin.
My dear Mr. Crownhart:

A few days ago the program committee of the Wisconsin State Nurses' Association met in Madison with the presidents of the various departments within the State Nurses' Association. It was decided to change our date of meeting from September to October, and now we are planning to hold our annual meeting on October 11, 12, and 13, in Madison.

I am giving you this information, Mr. Crownhart, because I thought there is a possibility that you might want to place it in the Medical Journal.

Sincerely yours,

Cornelia Van Kooy,
President.

Cornelia Van Kooy:E

BOOKLET FREE

National Tuberculosis Assn.,
370 Seventh Avenue,
New York City.

June 1, 1926.

Mr. J. G. Crownhart, Editor
Wisconsin Medical Journal
Milwaukee, Wisconsin

My dear Mr. Crownhart:

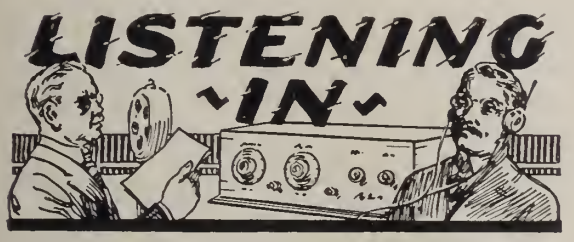
Enclosed with this letter you will find a copy of our new booklet on Standards for the Diagnosis, Classification and Disposition of Cases of Pulmonary and Glandular Tuberculosis. This sixth edition of our pamphlet is practically entirely new. The text has been completely rewritten and revised by an expert committee whose names you will find on page 4.

We trust that you will be able to give this little document editorial mention in your columns. Copies of the pamphlet may be secured free of charge by any physician on request to his state tuberculosis or public health association. Request to the National Tuberculosis Association at 370 Seventh Ave., New York City, will be transmitted in turn to the several state associations.

Thanking you for your consideration in this matter, we remain

Very truly yours,

Philip P. Jacobs,
Publicity Director.



A WELCOME CALLER

With the mercury hovering around the century mark and Milwaukeeans seeking relief from the intense heat, Dr. Sidney S. Hall, Minneapolis, treasurer emeritus of the State Society, paid a visit to his many Milwaukee friends during July. While in the Secretary's office, Dr. Hall reluctantly promised to spend odd moments during the next year in writing on early medical history in Wisconsin and especially of the Civil War at which time Dr. Hall saw active service in the Mississippi River campaigns.

COMMENDS WISCONSIN LAW

At the annual meeting of the Fifth Councilor District Society Dr. Morris Fishbein, editor of the Journal of the A. M. A., declared that the principle embodied in the Wisconsin Basic Science law would eventually be adopted by every state where it was desired to protect the public from fraud and quackery in the field of treating the sick.

EXPIRES IN 1927

Unless continued at the short session of congress in December the Sheppard-Towner act will become inoperative after 1927. A bill to extend its provision for an additional two years was passed by the house but was filibustered out of existence by Senator Reade when it was brought before the senate during the closing day of the session. The senate committee had recommended its continuance for one year.

A. M. A. FELLOWSHIP

It has come to the attention of the Secretary that some members have confused membership in the American Medical Association with Fellowship in the Association. That all may know of the distinction we make the following statement.

Every member in good standing of his county medical society automatically becomes a member in good standing of the State Medical Society and the American Medical Association. Of the total dues paid, none are transmitted to the American Medical Association, however, the State Society receiving $9 and the balance being retained by the county society.

Membership is a prerequisite and entitles one to apply for Fellowship in the American Medical Association. Fellowship is to be had by application direct to the A. M. A. enclosing $5 which also covers subscription to the Journal of the American Medical Association. Any other publication of the Association may be substituted if preferred, a slight increase being charged in some instances.

Fellows of the American Medical Association have privileges not extended to the general membership. Such privileges were set forth in this Journal for December, 1925, but we may mention here the right to attend and participate in the annual meetings of the Association, the right to the special package library service conducted by the Association and receipt of the Bulletin of the American Medical Association.

NOT ACCEPTABLE

From time to time the secretary's office receives complaints of misrepresentation of some product for the sale of which the profession in Wisconsin was circularized. Reputable houses doing business in Wisconsin rarely confine themselves to direct mail appeal but usually carry their messages in the columns of the Wisconsin Medical Journal, thus not only reaching the profession but also establishing the fact that they are known to be reliable.

TWENTY YEARS AGO

Secretary Charles Sheldon reported to the Council that the paid-up membership for 1906 was 1,434, a gain of 86.

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The minutes of the State Meeting includes a motion by Dr. Charles H. Stoddard of Milwaukee that a committee be appointed to determine the advisability of forming a state league on tuberculosis. The motion

was unanimously carried and the committee was appointed to consist of Drs. C. A. Harper, C. H. Stoddard, G. E. Seaman, John M. Beffel and J. N. Coon.

The report of the Committee, subsequently adopted, declared, "The time has arrived when Wisconsin should be represented by a state league for the prevention of tuberculosis. We therefore recommend that such a league be organized to include both members of the profession and laity."

* * * *

"It is to be hoped," declared the Journal editorially, "that the movement toward the foundation of a state league for the prevention of tuberculosis will receive the thoughtful consideration and aid of the medical profession of Wisconsin, as is the case with many eastern and middle states."

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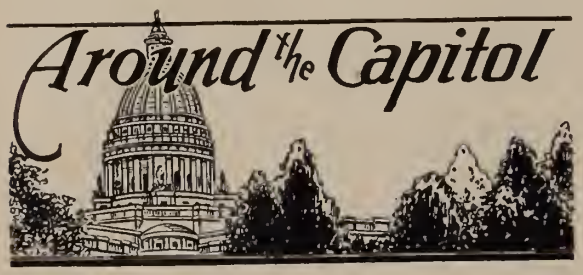
Dr. W. H. Neilson, Milwaukee, and Dr. C. R. Bardeen, Madison, were appointed to represent the State Medical Society at a meeting of the British Medical Association to be held at Toronto, Canada.



The farmer's dog has the right to cross the highway and autoists cannot run him down; the farmer's horse also has rights on the highway and the autoist who runs the animal down cannot collect damages for injuries to his car. Justice Charles H. Crownhart recently announced the decision of the supreme court in the dog case and Justice C. Owen in the horse case. Both decisions are of more than passing public interest because they lay down a rule that the autoist driving in rural districts must exercise care and caution. The farmer's dog and horse have rights on the public highway.

"The farmer is liable only for the damage resulting from the natural propensities of his animals and from such peculiar propensities of individual animals as have come to his attention," declares Justice Owen in sustaining a farmer in a case where the autoist sought to collect damages because the horse he ran into had damaged his car and injured the occupants.

The decision on the horse came in the suit of Jacob P. Fox, guardian for Adeline Fox, against William Koenig, Fond du Lac county.

The court held in the case of J. Schraeder against Ben and Emily Koopman, Dodge county, where the plaintiff brought suit for damages because the dog of the defendants was in the way of the machine and knocked it off its course, that the dog owners were not liable for damages to the autoists.

"Here the dog was not shown to be vicious or mischievous," Justice Crownhart declared. "He attempted to cross the highway in front of the plaintiff's automobile. He evidently misjudged the speed of the car, and paid the penalty with his death. But this does not establish the negligence of the defendants. We take common knowledge that it is the usual and common custom for farmers' dogs to run at large. There is no law restraining them, applicable to the situation here. The defendants were not with their dog, had no reason to expect the collision between the dog and the plaintiff's machine, and hence were not negligent."

* * * *

Out of six honorary degrees granted at the University late in June, one was given to a Wisconsin physician because of his services to medical science. Dr. William Snow Miller, upon whom was conferred the degree of doctor of science, is professor emeritus of anatomy in the University of Wisconsin Medical School. He has been a member of the faculty since 1892. He has made valuable contributions to the field of medicine by his work in connection with pulmonary tuberculosis. He was graduated from Yale University in 1879.

* * * *

In an effort to check the number of railroad grade crossing accidents in Wisconsin, the state highway commission is holding a series of conferences with railroad officials and a program is suggested to eliminate a certain number of death traps every year. Under the schedule that is proposed it would take ten years to eliminate all of the dangerous railroad grade crossings. Officials of the railroads look with approval on the scheme. The next legislature will be asked to make an appropriation to aid in elimination. A part of the expense would be borne by the railroad and a part by the state.

* * * *

John Quincy Emery, 83 years old, for 18 years state dairy and food commissioner, having been appointed to that post by the late Robert M. La Follette, will resign September 1st to re-enter the teaching profession in which he was engaged for 40 years. Mr. Emery's resignation is prompted by heavy losses he sustained through the mismanagement of his private funds by those to whom they were entrusted. These reverses have stripped Mr. Emery of all financial resources and he is about to re-enter his former teaching vocation to avail himself of the teachers' pension. Mr. Emery is expected to take a teaching position in either the Junior high school at Fort Atkinson or a position at the University of Wisconsin.

Mr. Emery has made an outstanding record in the administration of the state pure food laws during the long period he has served the state and many of the laws governing the food regulations now on the statute books were drawn under his guidance. No announcement of a successor is expected before September 1st, Governor Blaine declared.

* * * *

Western Wisconsin is to have a new state park. The Governor has approved the suggestion of the state conservation commission for the establishment of a state recreation ground on the banks of the Mississippi river

north of De Soto. The site of the park will be on the last battle ground of the Black Hawk war and is officially designated on road maps as "Battle Hollow".

The battle ground has a two-fold significance. It was the last resistance of the red men east of the Mississippi river. Likewise it signalled the entrance of the white man on lands across the river for settlement. The battle was fought in July, 1832. The state will take over a considerable area of land, utilizing a part of it as natural fish propagation beds and the Island portions as a state park. Until recent years the Island was used as a Chautauqua ground and Commissioner Hall hopes to open the new area in August. The site is on the main river road state trunk highway between La Crosse and Prairie du Chien. The scenery is majestic. Two bluffs, one named after Chief Black Hawk and another after Chief Winneshick, cast their afternoon shadows over the park area.

* * * *

The state industrial commission has just refused workmen's compensation to a man who played on a factory basketball team and was injured during a fight with another player during a game. The evidence in the case showed that the injured man did not receive any wages and the commission was of the opinion that there was not contract for hire. It also found that fighting is prohibited by baseball rules.

* * * *

Dr. Charles R. Bardeen, Dean of the Medical School and Professor of Anatomy at the University of Wisconsin, has recently been appointed a member-at-large of the division of medical sciences of the National Research Council, the central co-ordinating body for scientific research in this country, with headquarters at Washington, D. C. The medical division of the National Research Council consists of representatives of the chief American societies for the promotion of research in the medical sciences and of five members-at-large. At present the other members-at-large are Dr. Francis G. Blake of Yale University, Dr. Reid Hunt of Harvard University, Dr. Howard T. Karsner of Western Reserve University, and Dr. Frederick S. Lee of Columbia University.

Extensive Plans for 85th Anniversary Meeting at Madison in September Completed; Large Attendance Anticipated

With the announcement of the preliminary scientific program and extensive entertainment plans for both members and their wives, all major arrangements for the 85th Anniversary Meeting of the State Medical Society of Wisconsin at Madison, September 15th-17th, are now complete. Through the cooperation of the Madison Association of Commerce, the Dane County Society declares that there will be no conflicting meetings and that desirable accommodations are available to take care of the anticipated registration of upwards of a thousand members. A special committee of the society is now formulating plans for the entertainment of the wives of visiting members covering the periods taken by the scientific meetings.

While the general sessions do not open until Wednesday morning, September 15th, the annual golf tournament will be held on Tuesday, September 14th. The Council will hold its preliminary meeting late Tuesday afternoon and the House of Delegates will meet for its opening session early Tuesday evening.

General entertainment plans include an automobile tour of Madison and a tea for the wives of the members on Wednesday afternoon to be followed by an open meeting at the First Congregational Church Wednesday evening, at which time the President's Address will be delivered. At 9:30 Wednesday evening the members of the Dane County Society will hold a smoker at the Hotel Loraine in honor of the visiting members. A special male quartette and feature acts, including one by the Haresfoot Dramatic Club of the University, will provide amusement during the smoker.

PICNIC POINT FROM UNIVERSITY DRIVE

On Thursday noon alumni luncheons are being arranged for the alumni of Northwestern, Marquette, Chicago P. and S., Rush, Pennsylvania, Washington and Columbia P. and S. graduates. At the same time a special luncheon will be given for the officers of the component county medical societies by the officers of the State Society. At four the members and their wives will be the guests of the Dane County Medical Society at a Garden Party. Thursday evening, the members and their wives will meet in the large banquet hall

Delegates and Alternates Who Will Compose House of Delegates for Eighty-Fifth Anniversary Meeting at Madison

SOCIETY	DELEGATES	ALTERNATES
Ashland-B-I	M. S. Hosmer, Ashland	J. M. Dodd, Ashland.
Barron-P-W-S-B	D. L. Dawson, Rice Lake	G. A. Larson, Hayward.
Brown-Kewaunee	J. R. Minahan, Green Bay	E. S. Schmidt, Green Bay.
Calumet	F. P. Knauf, Kiel	J. J. Minahan, Chilton.
Chippewa	W. C. G. Henske, Chippewa Falls	H. H. Hurd, Chippewa Falls.
Clark	F. D. Jackey, Thorp	R. R. Rath, Granton.
Columbia	A. F. Schmeling, Columbus	H. E. Gillette, Pardeeville.
Crawford	A. J. McDowell, Soldiers Grove	W. W. Coon, Gays Mills.
Dane	W. T. Lindsay, Madison	E. S. Sullivan, Madison.
	H. P. Greeley, Madison	C. G. Dwight, Madison.
Dodge	A. A. Hoyer, Beaver Dam	A. E. Bachhuber, Mayville.
Door	J. Hirschboeck, Forestville	G. R. Egeland, Sturgeon Bay.
Douglas	H. J. Orchard, Superior	T. J. O'Leary, Superior.
Eau Claire & Associated Counties	H. M. Stang, Eau Claire	B. F. Johnson, Mondovi.
	O. J. Blosmo, Menomonie	F. E. Butler, Menomonie.
Fond du Lac	D. N. Walters, Fond du Lac	A. C. Dana, Fond du Lac.
Grant	J. C. Betz, Boscobel	E. H. Spiegelberg, Boscobel.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-W-A	H. A. Schulz, Ripon	W. E. Buckley, Red Granite.
Iowa	W. J. Pearce, Dodgeville	L. S. Graves, Mineral Point.
Jefferson	H. O. Caswell, Ft. Atkinson	J. F. Dennis, Waterloo.
Juneau	C. C. Vogel, Elroy	
Kenosha	G. F. Adams, Kenosha	F. B. Lansdowne, Kenosha.
La Crosse	W. E. Bannen, La Crosse	E. A. Smedal, La Crosse.
La Fayette		
Langlade	J. C. Wright, Antigo	E. G. Moore, Antigo.
Lincoln	W. H. Bayer, Merrill	E. K. Morris, Merrill.
Manitowoc	E. C. Cary, Reedsville	F. E. Turgasen, Manitowoc.
Marathon	D. T. Jones, Wausau	F. C. Nichols, Wausau.
Marinette-Florence	G. R. Duer, Marinette	J. V. May, Marinette.
Milwaukee	F. B. McMahon, 120 Wisconsin St	S. M. Mollinger, 396 11th Ave.
	C. Morter, 230 Grand Ave	S. G. Higgins, Wells Bldg.
	J. W. Powers, Majestic Bldg	
	R. W. Blumenthal, 220 W. Water St	J. Dieterle, 141 Wisconsin St.
	H. Gramling, 1321 Forest Home Ave	D. E. W. Wenstrand, 733 Summit Ave.
	H. W. Powers, 770 39th St	R. Sproule, 141 Wisconsin St.
	M. F. MacRae, 120 Wisconsin St	John Beffel, 3211 Cedar St.
	W. Halsey, 410 Jefferson St	E. Peterson, Wauwatosa.
	H. McCabe, 123 Grand Ave	Bernard Krueger, Cudahy.
	W. J. Egan, 141 Wisconsin St	J. H. Carroll, 120 Wisconsin St.
	W. M. Kearns, Strans Bldg	J. Zivnuska, 582 Mitchell St.
Monroe	T. J. Sheehy, Tomah	G. C. Devine, Ontario.
Oconto	C. W. Stoelting, Oconto	E. A. Linger, Oconto.
Oneida-F-V		
Outagamie	C. E. Ryan, Appleton	
Pierce	Rolla Cairns, River Falls	Geo. M. Dill, Prescott.
Portage	H. M. Coon, Stevens Point	F. R. Krembs, Stevens Point.
Price-Taylor		
Racine	Geo. W. Nott, Racine	C. O. Schaefer, Racine.
Richland	J. S. Booher, Richland Center	George Parke, Viola.
Rock	T. W. Nuzum, Janesville	P. A. Fox, Beloit.
	W. A. Munn, Janesville	W. J. Allen, Beloit.
Rusk	W. F. O'Connor, Ladysmith	H. C. Johnson, Bruce.
Sauk	G. D. Beech, Adams	L. W. Sayles, Baraboo.
Shawano	A. J. Gates, Tigerton	P. A. Teschner, Cecil.
Sheboygan	O. A. Fiedler, Sheboygan	A. J. Knauf, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	O. H. Epley, New Richmond.
Trempealeau-J-B	C. F. Peterson, Independence	H. A. Jegi, Galesville.
Vernon		
Walworth	E. J. Fucik, Williams Bay	M. V. DeWire, Sharon.
Washington-Ozaukee	H. M. Lynch, Allenton	G. E. Savage, Port Washington.
Waukesha	A. W. Rogers, Oconomowoc	H. J. Tibbitts, Waukesha.
Waupaca	F. E. Chandler, Waupaca	T. E. Loope, Iola.
Winnebago	L. W. Lockhart, Oshkosh	S. D. Greenwood, Neenah.
Wood	K. W. Doege, Marshfield	F. X. Pomainville, Wisconsin Rapids.

ON THE MAPLE BLUFF COURSE

ALONG LAKE MENDOTA

of the Loraine for the annual dinner. Immediately following the dinner President Glenn Frank, University of Wisconsin, will give a short address to be followed by musical entertainment. All entertainment will be strictly informal and close to $1,500 will be expended in the completion of these plans.

An outline of the events by days follows:

TUESDAY, SEPTEMBER 14TH

12:00 noon—Luncheon and golf tournament at the Maple Bluff Country Club.

4:00 P.M.—Meeting of the Council at the Madison Club.

7:15 P.M.—Opening session of the House of Delegates, Main Hall, Hotel Loraine.

WEDNESDAY, SEPTEMBER 15TH

8:00 A.M.—Registration, Hotel Loraine.

9:00 A.M.—Scientific session, Hotel Loraine.

1:30 P.M.—Scientific session, Hotel Loraine.

1:30 P.M.—Automobile tour and tea for wives of members.

7:00 P.M.—Second meeting, House of Delegates, Hotel Loraine.

8:15 P.M.—Opening meeting, First Congregational Church.

9:30 P.M.—Smoker, Main Dining Room, Hotel Loraine.

THURSDAY, SEPTEMBER 16TH

7:15 A.M.—Third meeting, House of Delegates, Hotel Loraine.

8:30 A.M.—Scientific session, Hotel Loraine.

12:00 noon—Alumni luncheons for Northwestern, Marquette, Chicago P. and S., Rush, Pennsylvania, Washington and Columbia P. and S. graduates; Officers luncheon.

UNIVERSITY ARMORY AND LAKE MENDOTA

ON LAKE MONONA

2:00 P.M.—Scientific program, Hotel Loraine.
4:00 P.M.—Garden Party given by Dane County Medical Society at the home of Dr. F. A. Davis, Sauk Road.
7:15 P.M.—Annual dinner, Hotel Loraine.
9:00 P.M.—President Glenn Frank, University of Wisconsin, guest of honor.
9:20 P.M.—Musical entertainment.

FRIDAY, SEPTEMBER 17TH

8:30 A.M.—Scientific session, Hotel Loraine.
1:30 P.M.—Scientific session, Hotel Loraine.

SESSIONS IN LORAINE

With the exception of the open meeting at the First Congregational Church, diagonally across the street from the hotel, all sessions will be held in the Hotel Loraine, headquarters for the meeting. The entire mezzanine floor will be given over to the meeting proper and twenty-nine special booths are being erected to care for the technical exhibits. Special room will be devoted to the strictly scientific exhibits which will include a large demonstration from the Radiological Section of the State Society.

LARGE EXHIBIT

Technical exhibits now include:
Abbott Laboratories.
Frank S. Betz Company.
Cameron's Surgical Specialty Company.
H. G. Fischer & Company, Inc.
Hanovia Chemical & Mfg. Company.
Horlick's Malted Milk Corp.
Huston Brothers' Company.
E. H. Karrer Company.
Kremers-Urban Company.
Medical Protective Company of Fort Wayne.
Mellin's Food Company.
Merrell-Soule Company.
Victor Mueller & Company.
Pengelly X-Ray Company.
Physicians' & Hospitals' Supply Company, Inc.
Pitman-Moore Company.
Roemer Drug Company.
W. B. Saunders Company.
Scanlan-Morris Company.
Spencer Lens Company.
E. R. Squibb & Sons.
Victor X-Ray Corporation.

HOTEL FACILITIES

For the convenience of the members the Committee on Hotel Arrangements has compiled the following schedule of facilities and rates:

LORAINE HOTEL

Rooms without bath—$2.00 single.
Twin beds without bath—$4.00.
Rooms with bath, single—$3.00 and $3.50.
Rooms with double bed and bath—$5.50.
Twin bedrooms and bath—$6.00, $7.00, $8.00.
Will be able to accommodate approximately 400 guests.

PARK HOTEL

Single rooms without bath—$1.50, $1.75, $2.00.
Double rooms without bath—$2.50, $3.00, $3.50.
Single rooms with bath—$2.50, $3.00, $3.50.
Double rooms with bath—$4.50, $5.00.
Twin beds and bath—$6.00, $7.00.
Can accommodate about 300 guests.

BELMONT HOTEL

Single rooms without bath—$2.00.
Double rooms without bath—$3.50.
Single rooms with bath—$2.50.
Double rooms with bath—$4.00.

BELMONT ANNEX

Single rooms without bath—$1.50.
Double rooms without bath—$2.00.
Single rooms with bath—$2.25.
Double rooms with bath—$3.75.
Can accommodate about 250 guests between the two hotels.

CAPITAL HOTEL

Without bath, single—$1.25 and $1.50.
Without bath, double—$2.50.
With bath, single—$1.75 and $2.00.
With bath, double—$3.00 and $3.50.
Can accommodate about 50 guests.

MONONA HOTEL

Single rooms without bath—$1.25, $1.50, $1.75.
Double rooms without bath—$2.50 to $3.00.
Single rooms with bath—$2.00 to $3.00.
Double rooms with bath—$3.50 to $4.50.
Can accommodate about 35 to 40 guests.

CITY Y. M. C. A.

75 rooms at $1.00 and $1.25.

Preliminary Scientific Program for September Annual Meeting Announced; Features Problems of General Practitioner

While the final scientific program will include several notable additions, arrangements for which are now nearing completion, Chairman H. P. Greeley of the Committee on Scientific Program, makes the following preliminary announcement:

WEDNESDAY, SEPTEMBER 15th

9:00 A. M.—Conduct of a Periodic Health Examination (Demonstration)—J. A. Capps, Chicago.

Some Remedies—Use and Abuse—Bernard Fantus, Chicago.

Physiotherapy—Use and Abuse—Curran Pope, Louisville, Ky.

Pitfalls of Legal Medicine—W. C. Woodward, Bureau of Legal Medicine, American Medical Association, Chicago.

1:30 P. M.—Etiology and Treatment of Nephritis and Hypertension—Joseph Miller, Chicago.

Prognosis in Chronic Hypertonia—L. M. Warfield and F. D. Murphy, Milwaukee.

Clinical Effect of Liver Extract in Hypertension—W. J. McDonald, St. Catherines, Canada.

THURSDAY, SEPTEMBER 16th

8:00 A. M.—Periodic Health Examination With Special Reference to the Chest—G. L. Bellis, Muirdale Sanatorium, Wauwatosa.

8:30 A. M.—Allergy of the Skin—Otto Foerster, Milwaukee.

Non-Specific Protein Therapy—E. F. Mueller, University of Hamburg.

Hay Fever—H. S. Bernton, Washington, D. C.

Asthma—A. W. Gray, Milwaukee.

Clinic.

2:00 P. M.—Fractures—J. L. Yates, Milwaukee.

Some Orthopedic Problems of the General Practitioner—J. L. Porter, Evanston.

Backache—H. C. Schumm, Milwaukee.

Prognosis in Surgical Treatment of Cancer of the Mouth—F. B. McMahon, Milwaukee.

Radiological Aspects—Eugene Smith, Milwaukee.

Clinic.

FRIDAY, SEPTEMBER 17th

8:00 A. M.—Periodic Health Examination with Special Reference to the Pre-School Age Child—J. Gurney Taylor, Milwaukee.

8:30 A. M.—Five Errors in Obstetrics—J. O. Polak, Brooklyn, N. Y.

Pediatrics—Joseph Brennemann, Chicago.

Pyelitis in Children—H. F. Helmholz, Rochester, Minn.

Pyelitis in Pregnancy—W. J. Sexton, Marshfield.

Usefulness of the X-Ray in Obstetrics—Gentz Perry, Kenosha.

Clinic.

1:30 P. M.—Present Day Status of Fractures of the Skull—Ernest Sachs, St. Louis.

The remainder of the afternoon program is in the process of formulation and will include some of the foreign guests to be in attendance at the Post Graduate Assembly of America.

Medical Examiners Pass on One-Hundred Applicants; Dr. R. C. Rodecker, Holcombe, Elected President of State Board

One hundred applicants to practice medicine and surgery in Wisconsin were examined by the State Board of Medical Examiners at its regular meeting in Milwaukee held on June 29th, 30th, and July 1st. Fifteen applicants presented credentials for reciprocity. The Board also examined two applicants for licensure in osteopathy and surgery; five for licensure as massuers; four for licensure as chiropodists and one for licensure as a midwife.

Dr. Royal C. Rodecker of Holcombe was elected president of the State Board and Dr. Robert E. Flynn, State Bank Building, La Crosse, was reelected secretary.

At the Board meeting considerable time was spent in drafting recommendations for a contemplated change in the present Practice Act governing physicians and a tentative plan was made for a more rigid enforcement of the present law. Dr. J. Gurney Taylor, Milwaukee, Dr. Wilbur N. Linn, Oshkosh, and Dr. Thomas J. Sheehy of Tomah, were appointed to confer with the Committee on Public Policy and Legislation of the State Medical Society and present to that committee the recommendation for changes in legislation as passed upon by the State Board.

The questions on medicine and surgery for the State Board examination follow:

SURGERY

ROBT. E. FLYNN, M.D., La Crosse, Wis., *Examiner*

Write on any eight questions.

1. Give surgical anatomy of: (a) Direct inguinal hernia; (b) indirect inguinal hernia; (c) femoral hernia.

2. Give differential diagnosis and treatment of a tubercular hip.

3. Given a case of retention of urine. What are the surgical causes and treatment?

4. Give differential diagnosis in an acute pelvic infection.

5. Give etiology, complications and treatment of an ischiorectal abscess.

6. Give symptoms, diagnosis and complications of a fracture of the base of skull.

7. Give treatment of an infected wound on dorsum of hand which involves a hemorrhage from deep palmar arch and an injury to the bone.

8. (a) Name various subluxations of shoulder; (b) give complications; (c) describe Kocher's method of reduction.

9. Differentiate: (a) Cholelithiasis; (b) carcinoma head of pancreas; (c) tabetic crisis.

10. (a) Give symptoms and diagnosis of a carcinoma of cervix; (b) discuss conservative and radical treatment of same.

CHEMISTRY

ROYAL C. RODECKER, M.D., *Examiner*

1. Write the chemical formula of, viz.: (a) Tr. iron; (b) potass permanganate; (c) potass bichromate; (d) carbolic acid; (e) iodoform; (f) copperas; (g) acetic acid; (h) amylic alcohol; (i) strychnine; (j) hartshorn.

2. What is the boiling and freezing point: (a) Centigrade; (b) Fahrenheit?

3. Describe preparation of an antidote for Paris Green poisoning.

PATHOLOGY

ROYAL C. RODECKER, M.D., *Examiner*

1. Differentiate between fatty degeneration and fatty infiltration.

2. Describe thrombosis, embolism, infarction. Cite a case of each.

3. What is dropsy? What is its significance?

4. Descriptive pathology of diphtheria.

5. Descriptive pathology of poliomyelitis.

6. Descriptive pathology of influenza.

7. Descriptive pathology of malignant endocarditis.

8. Differentiate between degeneration and necrosis. Cite a case.

PRINCIPLES AND PRACTICE OF MEDICINE

J. GURNEY TAYLOR, M.D., *Examiner*

1. Outline steps in making a Periodic Health Examination.

2. Discuss obstructive jaundice: (a) Naming possible obstructions: (b) symptoms; (c) treatment.

3. Differentiate uremic coma from poisoning by (a) alcohol, (b) opium, (c) and from cerebral hemorrhage.

4. Give physical signs and symptoms of thoracic aneurism.

5. What are the causes of chronic dilatation of the stomach; give physical signs.

6. Give symptoms of chronic lymphatic leukemia, and characteristic blood changes.

7. What conditions may require lumbar puncture for assistance in diagnosis.

8. Discuss symptomatology of acute poliomyelitis.

9. Chronic lead poisoning: (a) State constitutional effects; (b) treatment.

10. State cause of heart block, and discuss Stokes-Adams syndrome.

Answer the first 5 questions, any 2 questions may be selected from the remaining. Seven must be answered.

PEDIATRICS

J. GURNEY TAYLOR, M.D., *Examiner*

1. What physical findings in the new-born would warrant a diagnosis of hereditary syphilis?

2. Differentiate scarlet fever from rubella (German measles).

3. Tuberculous adenitis: (a) What glands are most frequently involved in (1) infancy, (2) childhood? (b) etiology; (c) symptoms.

4. Differential diagnosis of small-pox and chicken-pox.

5. Outline treatment for goitre prevention.

(Two hours allowed for entire examination.)

PHYSIOLOGY

J. B. BREWER, M.D., *Examiner*

1. Of what does the ovum consist?

2. What is the peculiarity of the muscular fibre of the heart?

3. How many chemical elements enter into the composition of the body, and which in abundance?

4. How does water reach the blood?

5. Name the valves found in the course of circulation, and give their function.

6. What is deglutition, and how accomplished?

7. Mention some fatty acids found in the body.

8. What are the ductless glands, and where are they?

DIETETICS

J. B. BREWER, M.D., *Examiner*

1. Outline diet for reduction of weight.

2. What diet should be given in obstinate constipation?

MEDICAL JURISPRUDENCE

J. B. BREWER, M.D., *Examiner*

1. What is meant by malpractice?

PHYSICAL DIAGNOSIS

E. C. MURPHY, D.O., *Examiner*

1. Define and give causes of cyanosis.

2. Differentiate pleuritis in early stages from intercostal neuralgia.

3. Give physical signs of a cavity of the lung in pulmonary tuberculosis.

4. Lady age 70: has been sick two weeks; badly jaundiced over entire body; urine contains much bile; stools white: has vomited several times; temperature normal; no pain now nor at onset; large firm mass in right side from costal margin to below line with umbilicus. History of severe attacks of gall bladder colic,

(Continued on page XXII)

American Psychiatric Association Issues Official Statement of Position on Psychiatry to Criminal Law

Your Committee on the Legal Aspects of Psychiatry made a preliminary report at the 81st annual meeting of the American Psychiatric Association at Richmond, Virginia, on May 15, 1925. That report was printed in full in The American Journal of Psychiatry, Volume 5, No. 2, October, 1925, pages 306-311. Careful perusal of the report is recommended to the membership.

The committee asked for a continuation which was granted. It was decided to report in writing to the entire membership certain points of agreement and disagreement with regard to the various problems outlined in the questionnaire printed in the 1925 report. Members were then asked to indicate in writing their attitude toward the various points dealt with, mailing their comments to the committee. This enabled us to make indicated revisions in the final report, corresponding to the prevalent attitude and convictions of the majority of the members of the association. This final amended report is now respectfully submitted.

The committee felt that the problem assigned them was not merely one of what we as psychiatrists should recommend to the lawmakers in regard to bills regulating expert testimony. It seemed to us that our problem was one of reinterpreting to society the function and the objectives of the psychiatrist, particularly insofar as these concern the type of behavior which is technically and popularly regarded as criminal. The committee felt that it was exceedingly important to divert the attention of the public from the relatively minor issue of *alienistics* to the major issue of *psychiatrics.*

In the practical application of psychiatry to problems of criminal law, the prevalent concepts of tradition and long usage conflict sharply with psychiatric attitudes. Popular theories of retribution and established methods of dealing with offenders almost entirely prevented a scientific envisagement of crime until recently when psychiatrists, in spite of their original limitation of field, discovered and demonstrated that types and trends of abnormal psychology extended far out from the asylum into the court room, school and home. The psychiatrists found their experience and technique equally applicable to the irrascible employee, the retarded school child, the persistent stealer, the compulsive drinker, the paranoid murderer, and the textbook cases of epilepsy, melancholia and schizophrenia. Face to face with the legal partitions of misbehavior into "insane" and "criminal" psychiatrists now find themselves with no technical interest in these partitions and no general agreement with them but with a driving concern in all the unpropitious trends of human character; with all acts, thoughts, emotions, instincts and adaptations, either socially or individually adverse. Some of these constitute committable "insanity," some of them do not; but all of them are psychiatric problems.

The question of responsibility is constantly being raised and the psychiatrist is frequently asked to make definite statements regarding the responsibility of a particular subject. As White and Glueck have shown, however, the conception of responsibility is exceedingly vague. In a strictly legal sense it probably means the capacity to change one's conduct in response to the direction of certain painful associations. Of course this is not the sense in which the public understands it or uses it. In the latter case it is merely an echo, the antiquated crystalization of primitive and infantile reactions known as talion law. Of course no scientist has a moment's consideration for such emotionally determined policies or mystical concepts of atonement. There was a time when even inanimate objects were held to this kind of

(Continued on page XXII)

American Psychiatric Association,
Topeka, Kansas,
July 6, 1926.

Mr. J. G. Crownhart, Editor,
Wisconsin Medical Journal
153 Oneida Street
Milwaukee, Wisconsin

Dear Mr. Crownhart:

At the request of the Committee on the Legal Aspects of Psychiatry, I am sending you a copy of their report made to the American Psychiatric Association at its annual meeting in New York in June, 1926. The report covers a much discussed phase of medicine in which we feel sure many of your readers are interested. The report was accepted by the association and placed in the hands of the council, where it will be subjected to further amendments during a year of consideration. Comments from your readers will be welcomed.

Sincerely yours,
KARL A. MENNINGER,
Chairman.

KAM-c

THE JOURNAL BOOK SHELF

Diabetes and Its Treatment by Insulin and Diet. By O. H. Petty, M.D., and W. H. Stoner, M.D. F. A. Davis Company, Publishers. (Second Edition.)

Psychoanalysis and Beyond Psychoanalysis. By Leonard L. Landis, M.D., Editor-in-Chief of the "Life and Health" Magazine. Present National Chairman of the American Association of Independent Physicians.

Medical Clinics of North America. Volume IX, Number IV, Tulane University Number, January, 1926. Octavo of 381 pages, with 49 illustrations. Per clinic year, July, 1925, to May, 1926. Paper, $12.00, cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Thoracic Surgery. The surgical treatment of thoracic disease. By Howard Lilienthal, M.D., Prof. of clinical surgery at Cornell University Medical School. Two octavo volumes totaling 1294 pages, with 904 illustrations, 13 in colors. W. B. Saunders Company, Philadelphia and London, 1925. Cloth, $20.00.

A Compend of Obstetrics. Revised and edited by Clifford B. Lull, M.D., Instructor of Obstetrics, Jefferson Medical College, Philadelphia; attending physician, Dept. of Gynecology and Obstetrics, Philadelphia General Hospital. Especially adapted to the use of medical students and physicians. Tenth edition, 84 illustrations. Price, $2.00 net. P. Blakiston's Son & Co., Philadelphia.

Treatment of Kidney Diseases and High Blood Pressure. By Frederick M. Allen, M.D. Part I. Practical Manual for Physicians and Patients of 206 pages. The Physiatric Institute, Publishers, Morristown, N. J.

Diseases of the Skin. By Richard L. Sutton, M.D., Prof. of Diseases of the Skin, University of Kansas School of Medicine. Sixth edition, revised and enlarged, with 1,147 illustrations, and 11 colored plates. Price $12.00. C. V. Mosby Company, St. Louis, 1926.

The Thyroid Gland. The Beaumont Foundation Lectures. By Charles H. Mayo, M.D., Prof. of Surgery, University of Minnesota, Mayo Foundation, Rochester, Minn., and Henry W. Plummer, M.D., Prof. of Medicine, University of Minnesota, Mayo Foundation, Rochester, Minn. Series number four. Price $1.75. The C. V. Mosby Company, St. Louis.

Modern Methods of Amputation. By Thomas G. Orr, M.D., Prof. of Surgery, University of Kansas. Price, $3.50, with 125 illustrations. C. V. Mosby Company, St. Louis, 1926.

A Manual of Normal Physical Signs. By Wyndham B. Blanton, M.D., Associate in Medicine, Medical College of Virginia, Richmond, Va. Price, $2.50. C. V. Mosby Company, St. Louis, 1926.

Nursery Guide for Mothers and Children's Nurses. By Louis W. Sauer, M.D., Senior Attending Pediatrician, Evanston Hospital, and Assistant Attending Physician, Children's Memorial Hospital, Chicago. Second edition. Price, $2.00 C. V. Mosby Company, St. Louis, 1926.

Diseases of the New-Born. By John A. Foote, M. D., Prof. of Diseases of Children, Georgetown University Medical School. A monographic handbook. Illustrated. Price, $5.00. J. B. Lippincott Company, Philadelphia, London and Montreal.

BOOKS RECEIVED FOR REVIEW

New and Nonofficial Remedies, 1926, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1926. Cloth. Price, postpaid, $1.50. American Medical Association, 1926, Chicago.

Annual Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1925. Cloth. Price, postpaid, $1.00. American Medical Association, 1926, Chicago.

Birth Control and the State. A plea and a forecast. By C. P. Blacker, M.C. E. P. Dutton & Company, 1926, New York.

Hay-Fever and Asthma. A practical handbook for physicians and their patient. By Ray M. Balyeat, M.D. Illustrated. The book discusses in non-technical terms the causes of hay-fever and asthma and outlines the routine management for patients suffering from such diseases, with specific treatment for different types. Price, $2.00. F. A. Davis Company, Philadelphia.

Chemistry of Food and Nutrition. By Henry C. Sherman, Sc.D., Mitchill Professor of Chemistry, Columbia University. Third edition, rewritten and enlarged. The MacMillan Company, 1926, New York.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee, Wisconsin. These new books will be loaned for an inspection period only.

The Medical Clinics of North America. Volume 9, No. 1, July, 1925, St. Louis Number. W. B. Saunders Company, Philadelphia and London.

In this volume, among other articles of interest, is a series of studies on hair growth and pigmentation by Dr. William Engelbach. Research work on the relation of dermal pigmentation and growth of hair to the pituitary and suprarenal gland function is ably discussed, as is the association of such diseases as chloasma, vitiligo, hirsutism and virilism with ductless gland disorders.

Of interest is an article on hydrocephalus by Dr. McKim Marriott in which is presented the etiology and a selection of cases illustrating some of the common types of hydrocephalus and methods of diagnosis and treatment which should be adopted.

Diabetes Mellitus in Infants and Children, as presented by Dr. Alexis Hartmann; The Mentally Defective Infant and Child, by Dr. Borden S. Veeder; and Postural De-

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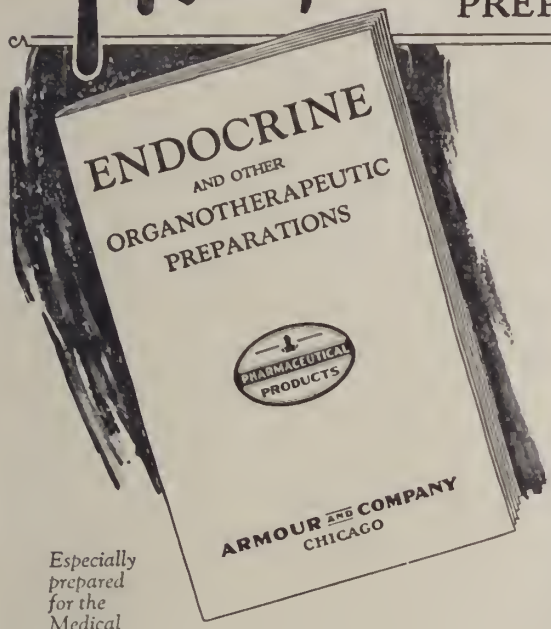

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fects and Body Types in Children, by Dr. Hugh McCullough are other works of interest chiefly to the pediatrician.

A timely discussion on the use of quinidin in auricular fibrillation by Dr. Drew Luten should be noted.—I. G. E.

Nephritis. By Herman Elwyn, M.D., Gouverneur Hospital, New York. The MacMillan Company, New York, 1926.

This new textbook on Nephritis is a most orderly presentation of the subject. Beginning with the histological unit, the nephron, Dr. Elwyn has continued through the discussion of the theories of urinary secretion in a most judicial fashion, summarizing the subject in a few pointed sentences indicating his own opinion. From this physiological viewpoint the question of pathology is considered, departing from the normal in the subjects of renal insufficiency, hypertension and uremia. The classification of Nephritis into the two great groups, the nephroses (or tubular degeneration), nephritis (or glomerular involvement and arterio-sclerotic conditions) seems, in view of our present information, to be most logical. Particularly valuable is the correlation of the clinical manifestation and the pathology under each of the several subdivisions.

It is refreshing to find such an adequate and yet logical treatment of a subject which has been so confused in many of the monographs to date. Both student and practitioner may consult this text with profit.—W. S. M.

The Medical Clinics of North America. Volume 9, No. 3, November, 1925, New York Number. W. B. Saunders Company, Philadelphia and London.

The following are very good articles and for cases which are border line or obscure, information might be obtained which would aid in diagnosis, viz., the chapter on "The Interpretation of Sugar Tolerance Tests," "Hyperthyroidism Marked as Cardiovascular Disease with Hypertension and Arhythmia," "Syphilis of the Stomach," where the symptoms are those of ulcer yet not typical.

The better knowledge of the use of the following drugs might be beneficial, viz., "Digitalis Hypersusceptibility and Dosage," "Quinidin—a Useful Cardiac Remedy."

The following articles are not of so much value to the practitioner: "Sclerosis of Pulmonary Artery and Branches," "The Influence of Focal Infection" which subject is, as a rule, overworked.

The following subjects might aid in diagnosing obscure cases: "Transitory Blindness after Chickenpox," "Pulmonary Tuberculosis in Early Infancy."

The chapter on X-Ray Diagnosis of Gastric and Duodenal Ulcer would perhaps add new ideas to x-ray interpretation of the conditions.—D. E. M.

Our Present Knowledge of Heredity. A Series of Lectures Given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa and Washington (St. Louis). 1923-1924. W. B. Saunders Company, Philadelphia and London.

This volume consists of a series of popular lectures given at the Mayo Foundation and the Universities of Iowa, Minnesota, Nebraska (Medical) and Wisconsin, and Washington University of St. Louis, during the year 1923-24. The lectures constitute brief resumés of various aspects of heredity. The topics covered are evident from the following list of subjects and authors:

"Heredity, the General Problem and Historical Setting," by W. E. Castle of Bussey Institution, Harvard University; "The Heredity of Sex," by C. E. McClung of the University of Pennsylvania; "The Inheritance of Acquired Characters," by J. A. Detlefsen of the Wistar Institute; "Heredity in Relation to Cancer," by Maude Slye of the Sprague Memorial Institute; "The Influence of Heredity on the Occurrence of Cancer," by H. G. Wells of the University of Chicago; "Eugenics," by M. F. Guyer of the University of Wisconsin.—M. F. G.

Massage and Therapeutic Exercise. By Mary McMillan. Second edition, reset. Cloth, $2.50, net. W. B. Saunders Company, Philadelphia and London.

Miss McMillan's discussion of Massage and Therapeutic Exercise is clearly written, and quite sane in its content. The book is primarily intended for students of Physical Education, and for nurses and Physiotherapy Aides, and for this class of readers is well adapted. Incidentally it gives some good points for the medical practitioner. A large number of disorders to which physiotherapy is applicable is discussed, although somewhat briefly. Exercise as a therapeutic measure is too often neglected by the physician, or at least inadequately prescribed. Miss McMillan's specific description of exercises will do much to help in many functional disorders, physical defects, etc. The second edition of the book is somewhat enlarged and re-written.—J. C. E.

Lectures on Nutrition. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington, St. Louis, 1924-25; 12mo, 243 pages, illustrated. W. B. Saunders Company, 1925, Philadelphia and London. Cloth, $2.50 net.

This book appears in its fifth edition which has been considerably revised in order to include the more recent studies in the five years since the last edition. The book is without a rival in the field suggested by its title. It is a complete treatise and will be found very understandable not only by men trained in pathology or in chemistry but by any clinician who desires more detailed information about the pathological process which he observes. The literature citations are so copious that the book is really an excellent guide to the original studies on any topic within the scope of this work. It is interesting to note that the book is not entirely written by Dr. Wells but that certain chapters have been contributed or revised by men in special fields of study.

—E. L. S.

United Fruit Company, fourteenth annual report. Medical Department, United Fruit Company, Boston, Mass., 1925.

This Fourteenth Annual Report of the Medical Department of the United Fruit Company is an exceedingly interesting volume. The Company maintains a hospital in every main port which their vessels touch, and the staffs evidently come into contact with all the tropical diseases common to tropical America.

In the Statistical Section brief histories are given of

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21 white employees from the temperate zones who died in the hospitals. Commenting on the 46 deaths of white employees during the past three years the report states: "Experience tends to confirm our belief that the American Tropics are not enervating nor necessarily detrimental to the health of northern races if they will merely observe proper and reasonable measures to safeguard their health."

Following this section there are a number of reports of interesting or unusual tropical diseases or their complications. There is an article on Snakes of the Ulua River Valley with an account of the methods of capture, identification and comments on the general value of snakes as destroyers of farm pests.

The volume closes with an illustrated article on Problems of Preventive Medicine in the Tropics in which the author takes up the numerous difficulties attending the problem of sanitation.

The reviewer is left with the feeling that the company is helping materially to render the American Tropics as safe a place to live as the Temperate Zones. Such efforts by a Commercial Organization reveal the trend of modern business methods, responsibility for the health and well-being of employees.—L. M. W.

A Bipolar Theory of Living Processes. By George W. Crile. The MacMillan Company, New York, 1926.

Biology has proved that all processes of life are obedient to the same immutable natural laws. The smallest and the simplest known unit, the cell, has structural and functional peculiarities which are interdependent. They are never static but ever dynamic so long as life obtains.

Cells are composed of lesser units so arranged and correlated that they combine to provide the structure and to develop the energies which are the functions. Ingestion, digestion, egestion, growth, reproduction and responsiveness to stimulation and to irritation are accomplished by metabolism that distinguishes living from non-living matter.

The organizing and administrative center that coordinates and directs the lesser units is within the cell nucleus; the working units are mainly in the cytoplasm. Life ceases when the more powerful intranuclear units fail to dominate the less powerful units. Cells are so constituted that each makes the best effort of which it is capable in accordance with its peculiarities and the nature of its environment.

Cells are of average strength and endurance or they are above or below that average. They respond to the demands of a favorable or an unfavorable environment in proportion to their potentialities, i. e., the intensity and duration of the responses are commensurate with their strength and endurance. There is health so long as cells maintain the structure that permits delivery of functions that differ, if at all, from the usual product quantitatively but not qualitatively. During health the number and size of the lesser units fluctuate but their inter-relationships are maintained. Disease appears with such alterations in structure as compel qualitative differences in function. Again the number and size of lesser units fluctuate but in disease their inter-relationships are modified. When the more powerful units can no longer dominate the less powerful, life ceases.

Organisms composed of cells behave as do cells composed of lesser units. Powers of organization and of administration are vested in the cells of the nervous system. So long as the nerve cells of the brain dominate the other cells, and they continue their usual inter-relationships which assure the continued production of essential functions, the organism is healthy. The type and characteristics of disease are expressions of morbid modifications in structure and function of cells directly affected and of alterations of inter-relationships with other cells.

The aims of therapy are (1) to prevent morbid modifications in the structure of cells, (2) to aid modified cells to regain normal structure, (3) to encourage other similar cells to overtake the work of incapacitated cells, (4) to help induce dissimilar cells to undertake to satisfy the obligations of incapacitated cells for which they are not previously responsible, and (5) to assist the organism to live economically so that expenditures may not exceed the accumulations of energy.

Thus may therapeutists aid Nature in the attainment of the aim of civilization, namely, to minimize human disabilities. The great need is an understanding of Nature's methods. Unfortunately, most biologists are uninformed as to the problems presented by human ailments and most therapeutists are as little versed in biology. Crile has done much to help close this fictitious chasm between scientific and practical medicine that has retarded progress more than any other factor.

Crile presents in "A Bipolar Theory of Living Processes" a working hypothesis sadly needed to span the gaps that separate the isolated facts that have been established. He has developed electro-dynamic conception by which he explains the origin, nature and significance of metabolism and the means whereby cells maintain the inter-relationships of their component lesser units and organisms maintain the inter-relationships of their component cells. Simultaneously he explains morbidity and suggests means to control it.

Crile does not claim his conceptions are correct. He gives the evidence from which he has made his deductions. His premises will be disputed and his conclusions will be denied. None can say now how much may be tenable and how much is erroneous. The readers of this book will profit greatly if they try to grasp the large problems attacked and to understand the author's viewpoint. Just criticisms can and should be made by those sufficiently well informed to speak with authority. Certainly no one would welcome them more than Dr. Crile. Destructive criticisms spring from misunderstanding and lack of sympathy. They never advance knowledge.

Those who are seeking aid to comprehend the homely jobs of the clinician will find help and inspiration in this contribution and will endorse the opinion that the medical profession is still further indebted to Dr. Crile for his productive efforts to rationalize therapeutics.

—J. L. Y.

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Heliotherapy in Tuberculosis*

BY E. A. FLETCHER, M.D.
Milwaukee

That a shoe-maker should stick to his last is a very sound doctrine, especially in the practice of medicine.

To some of you it may seem as if this doctrine were being denied in the selection by the speaker of such a subject as heliotherapy in tuberculosis, however, such denial is apparent rather than real for no tissue in the human body is immune to the ravages of the tubercle bacillus which "flits from bone to lung, to kidney" and urinary tuberculosis is not an uncommon disease though frequently masquerading under an alias.

When we consider the variety and magnificance of the phenomena in the sky due to the sun it is but small wonder that man in the earlier stages of civilization was a sun worshipper.

That the ancient Egyptians should build cities, temples and obelisks and dedicate them to the sun is far less surprising than that twentieth century man should destroy similar structures in a world war.

The sun is our nearest star and like all other stars it shines because of its own energy, losing about four million tons of matter per second. It has been radiating heat and light for millions of years. The sun is a sphere having one and one-third million times the volume of the earth and ninety-three million miles distant. It contains many of the heavy metals and elements, including helium, that are found in the earth.

It is believed that the sun is composed of gases under great pressure and at a very high temperature, 7000 degrees centigrade, and that the constant contraction going on in the interior of the sun is a source of heat to it. It takes the light of the sun about eight minutes to reach the earth traveling at the rate of 186,000 miles per second. The sun's rays travel in straight lines and at a uniform velocity but in varying wave lengths, and these varying wave lengths are manifest to us in the colors of the rainbow. The eye is capable of appreciating wave lengths between 400 and 800 millimicrons.

The sun emits ether waves which are shorter and longer than the eye can see as well as visible waves. The shorter waves are called ultra-violet and the longer waves infra-red. A wave length equals velocity divided by the number of wave lengths per second. Light waves are generated by the oscillation of electrons.

All of the sun's rays produce heat, light and chemical changes, but not to the same degree. The capacity to transmit light varies in different bodies. As sunlight passes from an elevation of 6,000 feet to the sea level it loses about twenty-five per cent of its radiation due to the air, density, moisture and foreign material, and this loss is greatest in the ultra violet rays.

If sunlight passes through a prism we have a visible spectrum produced but beyond the red are the invisible infra-red rays and beyond the violet are the invisible ultra-violet rays. The amount of ultra-violet rays in solar light is relatively small and atmospheric impurities have the power of absorbing them. They are the shortest and least penetrating of the sun's rays and are rapidly absorbed. The solar ultra-violet rays range from 400 to 290 millimicrons.

Heat production is chiefly associated with the red and infra-red rays, and light with the red to violet rays. The most active chemical rays are the violet to ultra-violet. Window glass absorbs ultra-violet rays below 330 millimicrons and these rays between 330 and 290 are the best pigment producers. (A millimicron is one one-millionth of a millimeter.)

Snow, ice, water and sand increase the intensity of light by reflection; hence, the superiority of the mountain to sea level air in tuberculosis. Window glass, because of the soda, ash and lead which it contains, absorbs the ultra-violet rays; hence, one can not be tanned by sunlight which passes through window glass. The ultra-violet ray penetrates the skin to the depth of one millimeter only. Pigmentation is not only a protection against the

*Presented before 79th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, Sept. 16, 1925.

actinic ray but it favors light penetration as it changes the bright reflecting skin into a dark absorbing surface.

It has been found that sunlight can penetrate the body for a considerable distance and this penetration is greatest as the red end of the spectrum is reached. The Thèzac-Porsmeur lens by concentrating the sun's rays intensifies their penetration, this lens was very extensively used during the war in the healing of war wounds. Sunlight is decidedly bacteriocidal, the tubercle bacillus being killed in a few minutes by it.

Finsen, Rollier, LoGrasso, and other light investigators state that there is no adequate substitute for sunlight. The electric arc lamp's spectrum corresponds very closely with the sun's, but in the treatment of tuberculosis the results fall far short of those obtained by the sun cure.

ROLLIER'S CLINIC

In 1903 Dr. A. Rollier opened the first clinic for the systematic air and sun cure of surgical tuberculosis at Leysin, a town in the Swiss Alps, which has an altitude of 4,300 feet. He used as a sanatorium the only boarding house in the village and says that soon thereafter he added to his equipment by building the first solarium seen in Europe since the time of the Romans.

In 1920 at Cergnat, two miles distant from Leysin, he established a "School in the Sun" for children predisposed to tuberculosis. The children averaged from four to twelve. The colony is composed of boys and girls, and the only clothing worn is a breech cloth. The bodies of these children are deeply pigmented. They are exposed to the sun bath two hours a day and take a two hour absolute rest period a day.

Rollier says that the transformation both mental and physical which takes place in a few weeks in these children "in the school in the sun" is remarkable, but the same care is used in exposure and the same rules apply as in the sanatoria. Rollier's school in the sun is but a modification of the same idea adopted by the early Greeks, they held their gymnastic classes in the open and participants were naked.

After the success of Rollier's school in the sun was demonstrated several others were established in Switzerland. It is in infancy that the germ of tuberculosis is contracted and if the disease appears in adult life it is but the rekindling of an old infection.

At the present time Rollier has thirty-seven clinics, housing nearly 1,000 patients. Two pavilions are maintained by the Swiss government for its tuberculous soldiers, and there is also a free clinic for the poor. Besides these institutions he has a working settlement and a farm colony for convalescents.

These facts in themselves might seem to warrant a consideration of Rollier's treatment, but further investigation is still more convincing of the value of heliotherapy as conducted at Leysin.

Professor Oehlecker in his book on Bone and Joint Tuberculosis, says great credit is due Rollier and that heliotherapy is successfully used at sea level in England, France and Germany.

Saleeby, an English author, who has made it his business to investigate all of the important sanatoriums in Europe and America, says that Rollier's results are unapproached for certainty, safety, restoration of function and happiness during and after treatment.

He says that the greatest "surgical show" in America is at the Mayo's and in Europe at Leysin where the knife has been abolished in the treatment of surgical tuberculosis.

Forsell, the Swedish dermatologist, says that one must visit the Rollier clinic in order to have an adequate conception of the marvelous results obtained from sun treatment.

ESSENTIAL FACTORS

Rollier regards as essential factors in the sun cure:

1. Sunshine.
2. Fresh air.
3. Food rich in vitamines.

Patients eat little meat, use no alcohol or cod liver oil. Fruits, vegetables, milk and its products are the chief articles of diet, and he says that milk of perfect composition can only be produced by cows living in the sunshine and fed on green fodder. He objects seriously to over feeding. His patients are not fat, but look like well trained athletes, and the idea that a nude person with a deep pigmented and properly functioning skin is not clothed soon leaves one at Leysin, where all conventional ideas of modesty receive their death blow. Carlysle in Sartor Resartus says that primitive man did not wear clothes for the sake of protection or for modesty but purely for ornamentation.

Colds in the head, bronchitis and rheumatism do not occur in Rollier's patients.

The skin has a very rich nerve and vascular

supply; it has a variety of functions, the chief of which is probably heat regulation. It gives off CO_2 and H_2O and absorbs O.

Air and light are the natural surroundings of the skin, and wearing unhygienic clothes have weakened it, caused it to atrophy and become anaemic and flabby, and as a consequence great susceptibility to heat and cold result. The vasomotor reflexes become sluggish through disuse.

The normal functions of the skin can be regained by exposing it to the air and sun.

Sun baths dilate the superficial capillaries and blood vessels of the skin and thus lower blood pressure. Kirch estimates that in a well pigmented skin there is seven times the volume of blood there was in it prior to taking sun treatment.

The sun bath activates the circulation and the vibratory shock of the sun's rays may induce a continuous tonic action on the cutaneous sensory nerve terminals, thus restoring tone to the muscles and promoting physiological processes throughout the body, including recalcification of the skeleton.

This property has been brilliantly confirmed in the sunlight cure of rickets.

Patients, who do not pigment well, do not recover well. Blondes and red haired people pigment less easily than others.

Pigmentation is due to actinic rays and these are much more abundant at an elevation of 5,000 feet than at sea level, but at the sea level, if the air is smoke and dust free, sufficient actinic rays penetrate the atmosphere to make the cure practical.

The pigment receives, furnishes and activates the elements essential for the metabolism of the hormones. Pigmentation of the skin increases its resistance to heat and cold, lessens the dangers of infection, and plays a large part in the repair of wounds. Wounds of the pigmented skin heal with remarkable rapidity and rarely suppurate. Pigmentation protects against the too violent irritation which the violet ray can produce and it favors the penetration of the non-actinic rays.

The bacteriocidal power of the blood is generally increased after insulation (L. Hill) and this is perhaps one of the most valuable factors in the sun cure.

The defense mechanism of the body is increased by the sun's radiations, infectious diseases such as chickenpox, scarlet fever and syphilis do not cause eruptions on the pigmented skin, vaccination done in the ordinary way does not take in a well pigmented skin. Sunlight increases the number of red cells and the amount of hemoglobin in the blood.

The visible rays of sunlight, longer than the ultra-violet penetrate more deeply and are converted into heat when absorbed by the blood. Sonne by a series of brilliant experiments has demonstrated that the infra-red ray destroys toxins in the blood.

Light absorbed by the blood makes it a receptacle of radiant energy and one-third inch below the surface of the skin the temperature of the blood can be raised five degrees centigrade by sunlight.

The sun's radiations produce a very marked retention up to 400 per cent of the phosphates and calcium of the blood in rickets.

Sunlight has a marked trophic effect on the muscles. Muscles long encased in plaster show a remarkable development when exposed to the sun's rays.

The general body metabolism is influenced by insulation. Rollier thinks that the pigmentation bears a distinct relation to metabolism. A diabetic with four per cent sugar on ordinary diet became sugar free on the same diet while taking the sun treatment, but relapsed when the sun cure was discontinued. That fresh air influences body metabolism is evidenced in Leonard Hill's experiments at Grayling Island, England. Here children with surgical tuberculosis, from eight to sixteen years of age, lie naked in the open air for many hours a day under atmospheric conditions that would soon make ordinary healthy individuals shiver and uncomfortable unless wearing ordinary clothes, and the basal metabolism of these children is increased about forty per cent by the fresh air treatment, which they receive.

Often, in fact, generally, the sunshine has a decided effect on a lesion producing a sensation of warmth and analgesia, and there is also a change in volume and temperature of the affected part.

The analgesic effect of sunlight in laryngeal tuberculosis is quite remarkable, pain being abolished in ten to forty days after insulation is begun.

METHODS

The acclimatization and adaptation of the patient to his new surroundings at Leysin are of fundamental importance. After he has become accustomed to the altitude in a few days to two weeks,

he begins the fresh air treatment. The windows of his room are opened a little more during the hottest part of the day and later the large French windows are left open day and night. A fine day is chosen for the first time a patient is to appear on his balcony and the bed is wheeled out for a quarter to one-half hour and this period is gradually increased until the patient spends the whole day outside. The tuberculous lesion is exposed at this time a few minutes each day to the air but not to the sun.

Fresh air is an indispensable forerunner and accompaniment of heliotherapy but great care is used to prevent a breeze blowing on the exposed body.

Strict individualization and careful progression are the two basic ideas of this treatment.

There should be a sensation of exhilaration and well-being following the sun bath. There is a slight rise in temperature and pulse rate for a short time. The age and type of the individual and the type of his lesion are important as regards the duration of the sun bath. Short periods of insulation, ten to fifteen minutes, alternating with short periods of rest, ten minutes, allow a much greater total amount of sunlight than a prolonged continuous sun bath.

The duration of the sun bath depends upon the rate of pigmentation. When all of the skin is once pigmented, the body becomes a deep chocolate hue. There is no longer any danger of over-exposure and the patient can have several hours insulation a day. Three hours a day for most patients is the average. Sun baths must be of shorter duration in the summer than in the winter. A young, vigorous patient with a closed lesion can stand a variation in temperature between fifty and one hundred five degrees, and in the winter even more than this. Insulation should only be practiced when the air is relatively cool.

At sea level in the summer, the hours from six to nine in the morning should be selected for sun treatment. At Leysin the beds are high, the mattresses are very hard and so arranged as to be permanently airated. Attached to the beds are windshields to protect the exposed portion of the body from any breeze.

Heliotherapy in open tuberculosis is much slower and less certain than in closed tuberculosis because of the secondary infection which is always present.

If there is a sinus, a drainage tube or a laminaria plug is inserted in order to dilate the sinus and keep it open before heliotherapy is started, and the position of the patient should be such as to favor drainage in open cases.

The first result of the sun treatment in these open cases is an increased discharge of spicules of bone, sometimes sequestra come away and sometimes new collections of pus form and new sinuses open so that drainage is still more easy. The general health improves and pain diminishes. Healing in open cases must occur from the center to the periphery.

TUBERCULOSIS OF THE SPINE

All cases are immobolized in the dorsal position, early cases on hard mattresses only. Late cases have the back padded with cushions or better millet fibre, and in those with marked deformity millet fibre, sand bags and wooden blocks are used as pads and supports to the spine.

When the pain is gone and sclerosis of the tuberculous foci and recalcification of the bone have occurred, great advantage is obtained from the ventral position, and when in this position the three cushions used in the dorsal position are changed for a single hard wedged-shaped cushion which is gradually increased from time to time in thickness so as to increase the lordosis.

The advantages of the ventral position are:

1. It increases lordosis and decreases pressure on the spinal vertebra.
2. It decreases kyphosis.
3. It aids digestion materially.
4. It permits insulation of the back.
5. It favors the development of back muscles.

Plaster casts cause muscle atrophy and this is one of the chief causes of relapses. After some months in the ventral position, the patient has developed a magnificent muscular corset to support his vertebral column.

If abscess exists it should be partially emptied by aspiration if it shows a tendency to open or if it increases in size under treatment, but only a small amount of pus should be removed and compression of the abscess should follow aspiration so that hemorrhage does not occur in the pus cavity. Albee's operation never gives the same degree of solidity as a well developed muscular corset and Rollier has never yet recommended it. He has treated a number of patients that have had it done elsewhere and secondary infection in these patients is much more common than when heliotherapy is used.

A patient with spinal tuberculosis is only allowed to get up when clinical and radiological examinations show that the vertebral lesion is firmly sclerosed and that recalcification has occurred to such a degree that further impaction will not take place and this takes from twelve to twenty-four months in the dorsal and ventral positions. After this length of time in the horizontal position the muscles of the back are so powerfully developed that they form a fine vertebral support, but in addition to this the patient for some months must have some artificial support, but never a plaster cast.

In tuberculous hip disease, if the position is bad extension is applied to both legs and the pelvis is immobilized with a corset, but no casts as they deprive the part affected of air and light and increase the tendency to sinus formation and delay absorption of cold abscesses and the return of articular function is much more frequent when no cast is used. As soon as the patient's condition permits, the position for the sun bath is changed to a ventral one. Marked regeneration of the muscles occur. No passive motion is made, but at the proper time the patient makes slight motions. In the great majority of these cases abscesses are absorbed. Sinuses are treated solely by sun and air.

TUBERCULOSIS OF THE KNEE

In acute stages with great pain and rigidity, rest and heliotherapy are applied as soon as possible. In a short time the pain is gone and then attempts are made to gradually correct the deformity.

In a great majority of tuberculous ankle and foot cases, treatment is followed by return of articular function.

Rollier says the best orthopedic and preservative surgery may be practised by heliotherapy. It safeguards the entirety of the normal articular function to the greatest possible degree and to a greater degree than can be obtained by surgery. In over 13,000 x-ray plates, Rollier shows that deep seated tuberculous lesions can be healed by the sun.

Tuberculous peritonitis and ileocaecal tuberculosis are almost always secondary to pulmonary tuberculosis and surgical intervention is absolutely ineffective in many patients and may be harmful in others. Rollier has admitted four cases of fecal fistula in one week following operation for ileocaecal tuberculosis.

In tuberculous peritonitis heliotherapy produces its best results, but here great care is needed in the treatment and the lower extremities are insulated for several weeks before the abdomen is exposed. In 300 cases of tuberculous peritonitis, he has opened the abdomen but once.

TUBERCULOSIS OF THE LYMPH GLANDS

Rollier regards the lymph nodes as the most useful filters defending the body against infection. Tuberculous lymph nodes heal rapidly under heliotherapy. In from three to six months a permanent cure is obtained if there is no secondary infection. A gland the size of an orange can completely disappear in five months. He has never incised or curetted a tuberculous gland, but sometimes aspirates and applies pressure.

PULMONARY TUBERCULOSIS

His experience has been limited as only twenty per cent of his patients had active lung lesions.

Properly applied, he is convinced that heliotherapy should be a useful factor in the treatment in the great majority of cases.

The combination of hot air and sun is bad for any type of tuberculosis, it is especially bad for the pulmonary type.

In every case of pulmonary tuberculosis, he says one can assume that a secondary infection has occurred, and when this is so these patients like surgical tuberculous patients with secondary infections tend to react to sunlight with undue violence so that extreme care is needed in the treatment. The prognosis of tuberculosis treated in adults at Leysin is not less favorable than in children. He regards as indications for operation in surgical tuberculosis the presence of large extra articular sequestra and excision of joints is used only as a last resort when it is evident that a stiff joint will result in any event.

The dangers of heliotherapy are due entirely to the carelessness and ignorance of those who use or rather mis-use it. An effort has been made to show that it is a remedy of great possibilities in a disease in which drug therapy is useless.

The contraindications to the sun treatment are very few, age is not a contraindication, although the very young and the very old require extra care in the application of the treatment. Nephritis even in a mild degree is regarded as a contraindication, as are also uncompensated heart murmurs, toxemias, and fever.

As an adjunct to the treatment at Leysin, Rollier regards the occupation of the patient for a certain number of hours each day as important.

He has established for this purpose all sorts of light handiwork.

The lower part of the body is first insulated because it is the least sensitive. Air and sun baths must not be taken at noon in the summer at the sea level.

The preventive action of the sun against disease in general and in tuberculosis especially should be used much more generally than it is used and it should be remembered that the hottest sun is not the most beneficial.

"The hope of the tuberculous patient today lies in up-to-date, well-equipped, properly staffed, efficient country hospitals."

DISCUSSION

PRESIDENT CUNNINGHAM: The discussion of Dr. Fletcher's paper will be opened by Dr. Kassowitz.

DR. K. E. KASSOWITZ (Wauwatosa): Mr. Chairman, Ladies and Gentlemen: I enjoyed the paper of Dr. Fletcher very much, and I don't think I could add any important points to the matter which Dr. Fletcher mentioned. I just want to lay stress upon two factors. One is the matter of immobilization and active motion which Dr. Fletcher mentioned. There can't be any such factor as active motion with certain curative effects under impaired organization and without certain impartial immobilization. This problem Dr. Rollier has solved in a very wonderful way. I didn't see in the last issue of his book on heliotherapy illustrations of this method he is using lately. The principle is that he immobilizes just the very impaired region of an extremity or of the body or of the spine in the case of tuberculosis of the vertebra by a kind of splint which doesn't stop general mobility. It is very excellent material, very light and very solid, a cellulose product. I don't know if you can get it in this country.

The result is that an individual with a heavy cast of plaster of Paris won't move and will be more or less confined to bed, whereas a patient with this new material applied is able to move around. With tuberculosis of the ankle and stiffening of this very region, the child is able to walk around and use the extremity as a whole, which provides a satisfactory blood supply to this extremity and to this region, with the result of a complete healing.

I think the principle of best balance or equilibrium between partial immobilization and active motion is one of the most important principles of treatment of tuberculosis in general.

The other point is the question of finding the right dose of radiation. Rollier has taken care of that by his well known radiation of the different parts of the body and increasing the dose from day to day. One has to consider that the intensity of efficient rays of the sun, which are the ultraviolet rays, is much higher in a higher region with drier air than it is, for instance, in the plains and in this country. The doses are generally larger in the plains. The administration has to be a very careful one, but, on the other hand, the sun rays are much more homogeneous in a dry air than they are here. We experience that when we start treatment and don't see any better results after five or six days. In other localities, we get too heavy doses on account of a different intensity of rays. Therefore, one has to be more careful in the plains even than in higher regions, but even then one should not use that as an excuse that these results cannot be obtained here. One has to do the best they can under the circumstances and try to do even the best they can with radiation and with local and other general treatment of tuberculosis. (Applause.)

PRESIDENT CUNNINGHAM: We will be glad to hear from Dr. Pleyte.

DR. PLEYTE: Perhaps one of the more recently emphasized factors in the treatment of bone and joint and pulmonary tuberculosis is the sunlight treatment as prescribed by both Rollier and LoGrasso of this country, and also by Dr. Benedes at Minneapolis. There is one point in Dr. Fletcher's paper I think should be emphasized to all of us, that is the gradual exposures to sunshine. Beginning with an hour's exposure and keeping on with that exposure is not good technic. Rollier and LoGrasso have demonstrated that very clearly and have given us a very definite outline according to their methods of exposure. The treatment of tuberculosis with sunlight is not the same as x-ray exposures to tubercular glands, whether that be in the cervical region or in the intrathorax region; there the treatment is localized. The treatment of tuberculosis of the glands, or pulmonary tuberculosis, with sunlight is generalized, starting with exposure to the ankle and gradually exposing the entire body. The absorption of the sun's rays is not locally by a diseased area but by the blood stream. Obviously the sun's rays are absorbed from the feet, ankles, legs and arms, quite as readily, if not more so than from the diseased area.

There is just one other point I am privileged to add here and that is that these outlines used by LoGrasso and Rollier for the exposure of the body can be furnished by the Wisconsin Anti-Tuberculosis Association to physicians who are interested. The outlines are quite similar, although LoGrasso's technic is a modification of that used by Rollier, which adapts itself perhaps a little better to our own climatic conditions. These outlines can also be procured at the booth in the outer exhibit of the Wisconsin Anti-Tuberculosis Association. I thank you. (Applause.)

PRESIDENT CUNNINGHAM: This paper is now open for further discussion.

DR. G. E. SEAMAN (Milwaukee): I have been greatly interested in this subject, as is well known. The virtues of the sun were known to the ancients. Twenty-five or more years ago the French took it up and utilized it at their seaside sanatoria, and then Rollier really developed the technic and gave us the basic information. The work in this country seems to have lagged, notwithstanding the very excellent results that have been had at Perrysburg and elsewhere. I have recently had the experience of spending seven weeks at Fort Baird, N. M., at the U. S. Veterans' Bureau Hospital for tuberculosis where there are about 550 cases.

That is the hospital where Dr. Bushnell did his work in tuberculosis. Many years ago Bushnell was interested in this subject, but had the idea that it was necessary to have glass houses, and he used prism glass and so on. The government built, under the supervision of Dr. Bruns, a prism glass house there, and spent $50,000 on it. While I was recently at Fort Baird in charge of the Veterans' Bureau Hospital for a short time, that prism glass house was taken down. You do not need any intermediary of that sort, all that is necessary is the sun.

At Fort Baird, New Mexico, at Fort Lyon, Colorado, and at Fitzsimmons at Denver, Colorado, the U. S. Veterans' Bureau Hospitals are getting the most marvelous results, especially in the treatment of bone, joint and gland tuberculosis. The whole question of the treatment of pulmonary tuberculosis is still a question. There are many doubters as to the results in pulmonary tuberculosis, but I am satisfied that in the field of pulmonary tuberculosis, with the development of the proper technic—and you are doubtless aware of the fact that Rollier has done very little in pulmonary tuberculosis—we will get results in pulmonary tuberculosis that will be comparable to those in bone, joint and gland tuberculosis. It must be understood that the results to be had at any institution from the sun are directly in proportion to the number of sunshiny days. There are certain portions of this country where we have as many as 320 sunshiny days, even in the northern country, in the Black Hills district of South Dakota, for instance, and in certain portions of New Mexico and Arizona they have from 300 to 320 sunshiny days a year. Down at Fort Baird they are treating a very large number of cases. I will say that the record of the U. S. Veterans' Bureau Hospitals at Fort Baird, Fort Lyon and at Fitzsimmons, I believe, will show that they are getting results that equal the results anywhere in the world.

On the Thursday before the Fourth of July, I presented ten cases, picked almost at random from a large number that were being subjected to heliotherapy to the county medical society at Fort Baird, five of them with tuberculosis of the larynx. The treatment pursued there for tuberculosis of the larynx is heliotherapy and silence and nothing else, no applications of any kind. These five cases that I presented were cures in tuberculosis of the larynx. They expect results in bone, joint and gland tuberculosis. I presented one case of a man who came there on the fifth day of March. He had been under treatment two and one-half years in Minnesota. He had tuberculosis of the lumbar spine. He had a discharging sinus in the groin, another one in the gluteal region and he had a minimum infection of the lung. On the first day of July the man was cured. He had no symptoms of any kind. His tuberculosis of the spine, as shown by the x-ray, would not be said perhaps to be a complete cure, but he had no symptoms, his sinuses were healed, there was no discharge, there was nothing but scar, he felt perfectly well and he had gained seventeen pounds in weight and was two or three pounds above his normal weight. That is only one case. There were many duplicates of that sort of case.

It seems to me that the medical profession of America has been slow in adopting this method of treatment. We can use heliotherapy in America as successfully as they can anywhere in the world. The matter of altitude, I think, cuts some figure. I believe that the careful study will show that at a moderate altitude they do get better results, all things considered, than they do at sea level, and not wholly because of the difference in the number of sunshiny days. I think it is a very encouraging sign that Dr. Fletcher, who only occasionally, perhaps, in comparison, sees a case of tuberculosis in his particular field of work, has sufficiently interested himself to present this very excellent paper. I thank you. (Applause.)

Dr. Harrington (Milwaukee): What has been said here this afternoon perhaps would make the physicians present feel that this work is being carried on at a great distance from them. Now those of you who have time, if you go out to Muirdale while you are here at the state meeting, will see children and adults as well who have been taking the sun treatment. Those of you who live down in the southwestern corner of the state, if you will take time to visit Willowbrook Sanatorium and see some of the work being done by Dr. Windesheim, will also be awakened, as you perhaps have not been, to the value of the sun treatment. Those on the west and northwest side of the state can well afford, I think, to spend a day at Glen Lake Sanatorium outside of Minneapolis, where you will see perhaps the best work that has been done in heliotherapy in the middle west.

I am sure that the physician doing a general practice will get a very great value from becoming more definitely acquainted with the methods of the sun treatment. We have three months in this climate, and only three months, when the sun treatment cannot be used to advantage—December, January and February. Beginning with March and continuing up to the first of December, it can be used. Remember that it is a therapeutic agent and when the sun itself cannot be used, the lamp, a very fair substitute, can take its place. In using the lamp during the winter months, you get your patients somewhat pigmented so that the doses of sun treatment later on can be carried on more rapidly.

Remember as a therapeutic agent you can get the overdose and that has been the mistake that I think two physicians, who have been attempting to use the sun treatment without first becoming familiar with the technic, have made. They have tried to make haste too rapidly. The over-dose sets back the patient and it takes a considerable time to undo the damage caused by the over-dose of sun treatment. The over-dose of the sun treatment is manifested by first a tired feeling, the patient feels all in; and, second, by a rapid pulse and a slight elevation of temperature; and, third, by sometimes a disturbance of digestion which in marked cases of over-dose will go as far as nausea and inability of the patient to take food for two or three days.

It has been mentioned here that the patient must be protected from direct exposure to the wind. Now that is only true insofar as this: If you expose the patient to the wind, particularly a cool wind, the surface of the body becomes chilled and the internal organs become

congested and the value, of course, is lessened and some damage may be done in that way. The picture showing the boys skating on ice with nothing on but a breech cloth indicates that wind of itself is of no harm so long as the patient is not chilled severely. In fact, it is of very great advantage because in getting the wind treatment with the sun treatment, you stimulate the funcions of the body, increase the appetite and also increase metabolism on the part of the patient. Thank you. (Applause.)

Congenital Intestinal Obstruction; Report of Two Cases in One Family*

BY S. H. LIPPITT, M.D., AND C. W. MORTER, M.D.
Milwaukee

Congenital intestinal obstruction is defined as a condition arising from a maldevelopment of the intestinal tract in utero, the result being varying degrees of narrowing of the lumen, or absence of entire portions of the intestines.

Although an instance of congenital intestinal obstruction was first recorded in 1797 by Osiander, Spriggs, in 1912, reviewing the literature, could collect but 328 recorded cases over this period of 115 years. Theremin, in 1877, investigating congenital intestinal obstruction in foundling asylums of Europe, found the incidence to be 2 in 110,000 in Vienna, and 9 in 150,000 in St. Petersburg. A more recent observation by St. George,[1] in 1918, is that "in the large necropsy service of Belleview Hospital during the past fourteen years, congenital obstruction of the intestine was encountered twice only."

ETIOLOGY

Numerous theories have been advanced as to the factors in embryonic and fetal life that make for congenital intestinal obstruction; among the most important being those of Bland-Sutton, Tandler, Emanuel, and Jaboulay.[2]

Bland-Sutton advanced the theory (1889) of "errors in development at the sites of important embryologic events." He takes the junction of the vitelline duct and the ileum in the embryo, as an example. If there is an arrest in the normal obliteration of the duct, we have a resultant diverticulum. On the contrary, the obliterative process may be excessive and involve not only the duct, but the walls of the ileum as well, and be responsible for stenosis or atresia at this important embryologic junction.

Tandler's theory (1902) of "Persistent Epithelial Proliferation" concurred in by Kreuter, Forssner, and Quinland,[3] is based on the observation that the gut-tract in the embryo is a tubular cavity; that epithelial proliferation and hyperplasia into the tubular cavity causes closure of the lumen of the gut. Normally, at about the third month of fetal life, there is a recanalization with a resultant patency of the gut. Failure to normally re-canalize results in varying degrees of stenosis and atresia.

Emanuel's theory (1903) is based on the observation that certain intestinal stenoses were seemingly intimately connected with strangulation of the gut, or the formation of multiple valvuli. He believes that such strangulations occurred during the process of coil formation and intestinal lengthening.

Jaboulay's theory (1902) is based on the observation that in certain cases of intestinal stenosis, there were associated anomalies of the blood supply. He believes that such anomalies interfered with the normal development of the part of the gut involved, and was responsible for the final obstruction.

Other possible causative factors listed are:

1. Fetal peritonitis (either tuberculous or syphilitic).
2. Traction due to inguinal hernia.
3. Pressure by new growths.
4. Pressure by the head of the pancreas.
5. Embolism of the superior masenteric artery.
6. Valvuli and intussusception.
7. Axial twisting of the mesentery.

As Richter[2] observed, "none of the theories advanced is capable of accounting for all cases."

PATHOLOGY

For the purpose of this paper, we are excluding from consideration congenital hypertrophic pylorie stenosis and imperforate anus, and limiting ourselves to the stenoses and atresias of the intestinal tract proper. The lesions may be single or multiple, single lesions predominating 5 to 1 in one series. Obstructions are more frequent in the small intestines than in the large, and more frequent in the duodenum than in the jejunum or ileum. Atresias are more frequent than stenoses. The degrees of involvement vary from a slight

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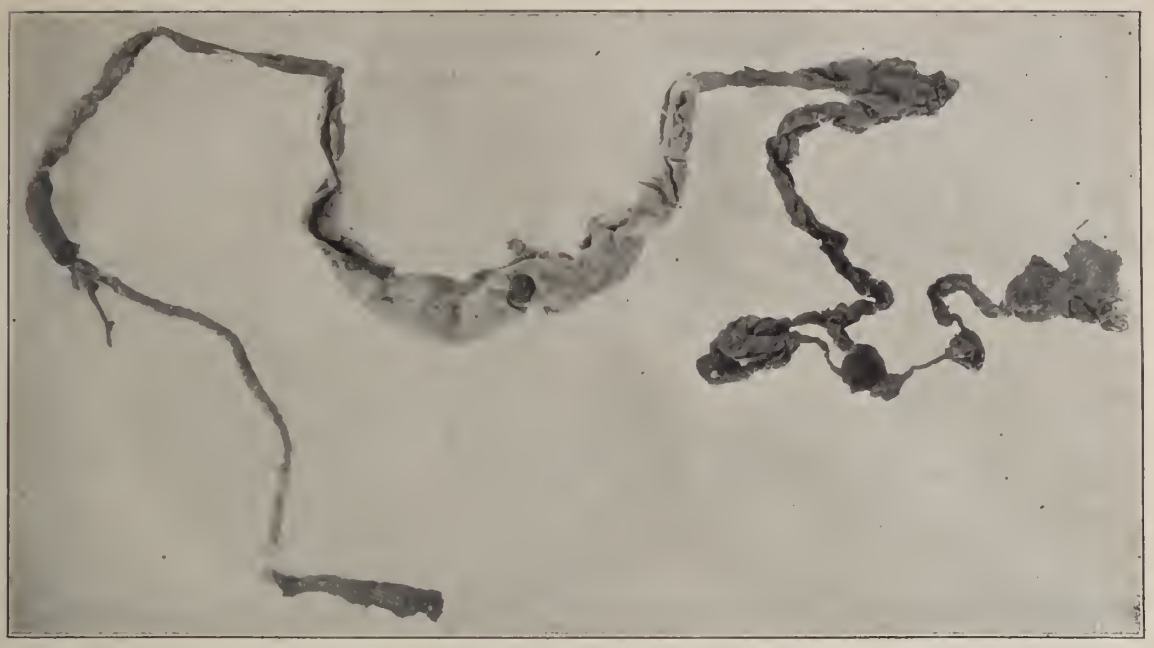

Stomach and upper intestinal tract, accidentally "dried out" before mounting.

narrowing of the lumen to extreme degrees of stenosis or even atresia. The extent of atresia may vary from involvement of short sections of intestine, with replacement by fibrous cord, to entire absence of a portion, with the formation of blind sacs of gut connected only by mesentery.

Forssner states that as a result of swallowing amniotic fluid, the intestine above the obstruction is found dilated with an accompanying hypertrophy of the muscularis. The lower segment of the bowel collapses, the wall atrophies, and the lumen may be totally obliterated. Richter,[2] however, states that "this lower segment, while contracted and cord-like, nevertheless, has a perfect lumen and can be distended with moderate water pressure to almost normal size." This is a point of utmost surgical importance, since this distal portion has to be counted on for purposes of anastomosis.

The colon, even when the obstruction is high up, is also much smaller than normal, but the rectum is usually normal. Associated abnormalities are occasionally seen, among which may be noted imperforate anus, esophageal atresia, and unusual shortening of the intestines.

SYMPTOMATOLOGY AND DIAGNOSIS

The three cardinal symptoms are:

1. Vomiting.
2. Absence of stool.
3. Abdominal distension.

Vomiting usually begins shortly after birth, and continues persistently, and tends to early dehydration and emaciation. The vomitus may contain bile, if the obstruction is distal to the ampulla of Vater.

Usually there is no bowel movement at or after birth; occasionally there may be a small meconium-like stool obtained by enemata; but according to Van der Bogert,[4] the substance passed will give no reaction to taste for bile and he accepts this as evidence of complete obstruction. Emanuel, however, believes that bile is not essential to meconium formation.

Abdominal distention is most marked when the obstruction is low down in the intestinal tract. The distention is mainly epigastric when the obstruction is high up.

Additional symptoms mentioned are anuria, jaundice, and emaciation. The emaciation is reported as being rapid, progressive, and critical by the second or third day.

Given a new-born infant with a patent anal opening, who has passed no meconium; who swallows normally, but who vomits persistently and has abdominal distention, the only diagnosis possible is intestinal obstruction.

The prognosis is grave. Fischl,[5] about 1908, wrote that the prognosis is absolutely hopeless. He says, "I can find no single instance in which there has been a successful operation performed." However, in 1911 Fockens, in 1916 Ernst, and more recently Richter, each reported one case of

congenital intestinal obstruction successfully operated upon.

Richter,[2] in 1924, writes a little more hopefully, and we shall quote him in full:

"The outlook for the baby is extremely grave, owing mainly to the fact that the diagnosis is rarely made early, and also that the intestine in infants is normally small, and anastomosis is, at best, difficult. In intestinal atresia, the distal segment is greatly collapsed and worm-like. Nevertheless, with early diagnosis and proper surgical interference, the outlook in a very considerable proportion of the cases should at least be fair. In single lesions, irrespective of their position, early surgical intervention offers a fairly good prospect of success. In multiple atresia, particularly with extensive defects, it is probable that the outlook will continue to be hopeless. This favorable prognosis, or rather, the suggestion that the prognosis may be favorable, is made in view of the fact that although to date there have been but three operative recoveries in congenital intestinal obstruction other than the cases of imperforate anus, the failure to obtain more favorable results has resulted entirely from the attitude of the physicians and surgeons alike, rather than from the intrinsic hopelessness of the lesion."

The treatment is surgical. The three successfully operated cases reported, were all done by primary anastomoses. Richter believes that primary anastomosis is the only procedure indicated in congenital intestinal obstruction; the only exception being in cases of high atresia of the rectum where it is impossible to approximate the segments.

CASE REPORT NO. 1

Baby R.—Female infant of Jewish parents, born at Mt. Sinai Hospital, Milwaukee, December 22, 1925 (Hospital No. 32394). Mother, 38 years old, has had a mild degree of diabetes mellitus for the past two years. Father, age 41, of neuropathic tendencies, complains among other things, of periods of 3 to 5 days without a bowel movement. Blood serum Wassermann reactions, negative in both parents. Three children living and well. One of them, however, a girl of 9 years, suffers from constipation and is reported to have "black stools" at times. There were two miscarriages, and two children died in infancy—one at 8 months, and one at 3 days.

Baby R., the 8th pregnancy, was delivered at full term by podalic version and extraction. Female infant, birth weight 8 lbs., 7½ oz., apparently normal and healthy. On the second day (December 23rd) reported to be nursing poorly and to have passed only a small amount of brownish stool. On the third day (December 24th) refused to nurse at breast; vomiting of greenish fluid noted, and no stools passed; abdomen distended. Flushing attempted, but water failed to go up into colon. Colonic tube passed about 4 inches, returned covered with small amount of bloody mucus. Small amount of flatus expelled through the tube. Stomach tube passed, and small amount of greenish fluid returned. At this time, the third day, infant was first seen by one of us (S.H.L.). Digital examination showed normal rectal ampulla. Diagnosis of congenital intestinal obstruction was made, operation advised, and patient turned over to the surgical division. Fluoroscopic examination at this time showed barium clysma rising to the splenic flexure. Roentgen film showed distension of small bowel loops. Three doses of 1/500 gr. each atropine sulphate were given hypodermically at three hour intervals, to exclude spasm. On the fourth day (December 25th) the abdomen was hard and distended. There was frequent vomiting of greenish fluid streaked with dark brown. There was no stool, but colonic flushing returned clear with particles of light yellow material. On the fifth day (December 26th) infant continued to vomit, but retained its well nourished appearance; had urinated several times daily; operation performed morning of the fifth day.

Operative findings: Distended loop of ileum presented; traced downward to contracted bowel of cigarette diameter, which began about 8 inches proximal to the ileocecal valve and continued the entire length of the colon. The mesentery was very short; the meso-colon was too short to permit bringing the transverse colon into view. An external ileostomy was performed. Irrigations through the ileostomy tube returned clear with a few small particles of dark yellow material. Vomiting now became fecal in odor and character. On the sixth day (December 27th) ileostomy irrigations returned with particles resembling meconium; fecal vomiting continued. Infant expired the morning of the sixth day. A partial post mortem examination was made—the stomach and entire intestinal tract down to the rectum was removed.

Post mortem report: Length of small intestine, 150cm.; length of large intestine, 24 cm. About 39 cm. proximal to the ileo-cecal valve, there is a

fusiform dilatation and hypertrophy of the ileum about 25 cm. long. From this latter point there is a funnel shaped narrowing extending to the ileo-cecal valve. The diameter at the dilated portion is 4 cm., and at the valve only ¾ cm. The large bowel is contracted throughout its entire length; its diameter is ½ cm., but the lumen is patent and contained a thread of meconium. About 20cm. below the stomach, the mucous membrane of the small intestine shows slight catarrhal inflammation extending downward for 50 cm. Pathological diagnosis is: Congenital stenosis of the small intestine with collapse and contraction of the entire colon. Congenital shortening of the intestinal tract.

CASE REPORT NO. 2

In the family history reported above, mention was made of one child who died 3 days after delivery. This was the mother's fifth pregnancy and occurred about 10 years ago. The infant, a male, is reported by the mother to have had persistent vomiting of dark material; no bowel movements, but a patent anus. There was emaciation, and death occurred three days after delivery. No autopsy was performed, but the clinical diagnosis was congenital intestinal obstruction. This diagnosis was confirmed by personal communication from the attending physician, Dr. W. A. McConkie, Cedar Rapids, Iowa. He reports further that surgical counsel agreed with the clinical diagnosis.

COMMENTS

1. The unusually short intestinal tract called our attention to the lack of uniformity in the recorded measurements for the normal. Holt[6] gives an average of 240 cm. for the small and 40 cm. for the large bowel. Vierordt, as quoted by Griffith,[7] gives 200 to 350 cm. for the small and 42 to 48 cm. for the large intestine. Scammon[8] gives averages obtained in twenty-five full term infants, as 300 to 350 cm. for the small and 66 cm. for the large intestine. In the case here reported (Case No. 1) the small intestine measured only 150 cm. and the large intestine only 27 cm.

2. Emaciation is usually considered a cardinal symptom, and is reported to be rapid, progressive, and critical by the end of the second or third day. In case No. 1, there was no emaciation noted at any time, although infant lived six days.

3. Anuria is reported as usual. In case No. 1, however, there were several daily evacuations of the bladder up to the time of operation on the fifth day.

4. In the review of the literature at our command, we have found no mention of familial repetition of congenital intestinal obstruction. Although no post mortem was performed on case No. 2 here reported, the classical symptomatology leaves little doubt as to the correctness of the diagnosis made. This report would, therefore, call attention to either a familial tendency or to an unusual coincidence.

In this report we have availed ourselves freely of the wealth of material in Richter's Monograph, "Surgery of the Gastrointestinal Tract in Children," and we desire to acknowledge our especial indebtedness to this author.

BIBLIOGRAPHY

1. St. George: Am. J. D. of Child., May, 1918.
2. Richter: Abt's Pediatrics, Vol. 3, pp. 504-509.
3. Quinland: Boston M. & S. J., Vol. 187, p. 870.
4. Van der Bogert: Archives of Pediatrics, Vol. 35, p. 45.
5. Fischl: Pfanndler & Schlossman's Diseases of Children, Vol. 3, p. 157.
6. Holt: Diseases of Children, 7th edition, p. 318.
7. Griffith: Diseases of Children, Vol. 1, p. 781.
8. Scammon: Abt's Pediatrics, Vol. 1, p. 322.

Diet in Epilepsy of Childhood*

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Essential or idiopathic epilepsy is a chronic disease of the nervous system, characterized by periodically recurring convulsions, lapses, or abnormal mental states occurring in individuals with a personality defect or constitutional inferiority but with no demonstrable pathologic lesion.[1] The character of the disease, the constitutional defect, the usual progressive degeneration classify epilepsy with the heredofamilial degenerations or abiotrophies. The pathologic defect remains to be demonstrated. The etiology of the disease, one of the oldest known, remains in obscurity and the diagnosis is still made by exclusion. Each of the various symptoms of epilepsy has been burdened by some investigator as the causus morbus. Chronic constipation and the intestinal tract have perhaps received the greatest attention.

*Read before the Chicago Dietetic Society, May 21, 1926.

Although the metabolism of the epileptic child is normal between attacks,[2, 3] the nature of the seizures suggests a disorder of metabolism. The capricious appetities, the usual chronic constipation, the histories of "food reactions" and "stomach trouble," the periodic recurrence of attacks, the increased toxicity of the urine obtained during attacks, and, in women, the cessation or the primary appearance of attacks during pregnancy, all suggest coincident, if not primary, metabolic disorder.[4] The most convincing evidence of a metabolic disturbance is the effect of diet on seizures. Each of the food elements, carbohydrate, protein, and fat· has been considered in the etiology of the disease. Recently, Pfeiffer et al[5] found that epileptics excrete large amounts of a ferment splitting glycyl-tryptophan after seizures. This substance which is increased in the blood before an attack, is absent from the blood and found in the urine after an attack. This finding is probably the result of the general disturbance.

Cuneo[6] advances an interesting theory in which he is supported by Osnato.[7] The proteose substance found in the blood of epileptics following a seizure when injected intravenously into animals will produce convulsions. Cuneo found the urine of epileptic patients to contain, in addition to the proteose substances, a high percentage of organic acids and a retention of the total nitrogen. He found also an increase in the nitrogen content of the feces, together with a continuous acidity. Cuneo fed a high protein diet and found a reduction of the acidosis and an improvement in the epilepsy. With a high carbohydrate diet, he found an increased acidity and an increase in the number and severity of attacks. The opinion is advanced that there exists a faulty starch metabolism occurring in the first stage of conversion to dissaccharides, maltose, lactose, cane sugar, etc. Normally this takes place through the action of amylolytic ferments, the subsequent conversion of maltose being effected by maltose ferment through hydration into glucose. The failure in the first stage results in the absence of sufficient amylolytic ferment, in the production of a more or less intense concentration of organic acids: Acetic, butyric, lactic, tartaric, etc. These acids, which normally should unite with the alkaline bases in the small intestine, pass in the epileptic into the blood stream and urine unchanged. The alkaline salts in the normal individual are oxidized, if ammoniacal, although ammonium carbonate into urea; if sodium, into sodium carbonate, the latter salt being necessary for maintaining the alkalinity of the blood and tissues. Cuneo attributes great importance to the acidosis, reporting that intravenous injection of sodium acetate and tartrate into animals produced typical "epileptic convulsions," following which a proteose substance, a "nucleo-histone," was isolated from the (carotid) arterial blood.

Cuneo's elaborate theory of acidosis is questionable. It has found favor mostly in Great Britain.[8] The work of Sturm van Leeuwen[9] has rather eliminated specific proteins as factors in etiology. Elimination of the various proteins has had no influence on epileptics.[1]

Popea and Vicol,[10] in necropsy studies of two epileptics· found a reduction or absence of lipoid in the cortex of the suprarenal capsules. They assume that the lipoids are used for neutralization of toxins, produced by the muscular contractions, in the epileptic seizures. These authors observed a diminished cholesterol content of the blood in each of sixteen epileptics during seizures. However, the cholesterol may have been used up during the excessive functioning of the nervous and muscular systems.

The effect of diet on epilepsy has been known as long as the disease, because fasting and purging have been practised in all diseases. When epilepsy was considered morbus sacer and morbus deificus, it was noted that total abstinence greatly influenced or controlled the attacks.

The acid-base balance disturbance has found the greatest support of any of the numerous theories in etiology. Many of the investigators in the various countries have found the attacks of epilepsy to be preceded by an alkalosis and followed by an acidosis.[11, 12, 13, 3] Between attacks, the neutrality regulation seems normal.[14]

The most favorable results reported in the treatment of epilepsy are those following treatment with the ketogenic diet.[15, 16, 17, 18, 4, 1] This high fat, low carbohydrate diet is an attempt to modify the acid-base balance in the epileptic patient. The results which follow the various other dietary regulations namely, milk diet, vegetable diet, fruit diet, large residue diet, no residue diet, salt free diet, anticonstipation diet, etc. may be attributed mainly to a regulation of habits rather than to the specific effect of any one food factor. Epilepsy may be found throughout the world with individuals on their normal diets which may range from 8% of the total calories supplied by carbo-

hydrate to 81% ; with protein ranging from 44% to 9% and fat from 48% to 10%.[1]

The ketogenic diet consists of 10 to 15 gms. of of body weight (up to 50 gms.) with the remaining calories (usually not to exceed 2200 in children) supplied in fat. The total caloric allowance is calculated at approximately 30 calories per pound. However, this allowance must be adjusted to keep the patient's weight at or slightly below normal for the age and height. The diet is best instituted directly following one week of starvation (allowing diabetic broth and some filler with water freely). If starvation is not feasible, the diet is instituted by gradually reducing the carbohydrate from 75 gms. daily to 50 gms., 30 gms. to 15 gms. in five days. The protein is correspondingly reduced daily from 60 gms. to 45 gms., to 35gms., to the calculated amount; the fat is increased in proportion to keep the caloric allowance approximately the same. Any tendency to nausea and emesis can easily be controlled with orange juice. Concomitant with the ketosis, or when the urine shows acetone and diacetic acid, the attacks are usually decreased in number and severity or cease altogether. If necessary, the fats are further increased until the attacks cease. This diet is now maintained rigidly even through all ordinary illnesses until there have been no attacks for three months. The protein is then increased ten grams. After another month of freedom the carbohydrate may be increased five grams and so on with a reduction of fat to keep the patient's weight normal.

It is advisable to institute monthly periods of starvation. For two days each month the patient is given only diabetic broth and wafers or muffins with no food value. Water is allowed freely. On the third day the diet prescription is again instituted.

CASE REPORTS

Seventy patients have now been given a fair trial on the ketogenic diet. Of these 40 have been free of attacks for periods of from three months to three years. In 18 patients the attacks are extremely infrequent and usually follow dietary indiscretion. Six patients are not improved and 6 patients are lost from observation.

The following case report illustrates the usual response to treatment:

A white boy, nine years of age, was seen in November, 1925, with a history of petit mal epilepsy of two years duration. There was nothing unusual in the family history and the past history was unimportant. The attacks of petit mal began suddenly and on admission occurred from 2 to 10 times a day. In the attack the boy simply stopped whatever he was doing, stared vacantly into space, and alternately flexed and relaxed his fingers. After a lapse of 30 seconds the attack was over and the boy resumed his previous activity. Luminal and bromides had had no effect whatever on the condition.

The patient was 58½ inches in height and weighed 102½ pounds. The physical examination revealed no abnormalities. The patient was unusually bright but rather stubborn and willful. The urine and blood were normal; the Wassermann and tuberculin tests were negative. Examination of the fundi revealed no abnormalities and roentgenograms of the skull and chest were normal.

The boy was put on the ketogenic diet after four days of gradual carbohydrate restriction with increasing amounts of fat. The diet consisted of 15 gms. carbohydrate, 40 gms. protein, and 180.5 gms. fat. After 4 days the urine showed acetone and diacetic acid and all attacks of petit mal ceased. There were no further attacks for ten days and the patient was sent home to continue on the diet. One week after his return home, the patient again had attacks of petit mal and the urine tests for acetone and diacetic acid were negative. Adjustment of the diet by correspondence proved unsuccessful and in January, 1926, there occurred two attacks of grand mal.

The patient was brought back February 20, 1926. Examination at this time showed no abnormalities. The height was 59 inches and the weight 87 pounds. The urine showed no acetone or diacetic acid. In February, 1926, the patient had three attacks of grand mal and on admission, February 20, 1926, he was having two to five attacks of petit mal daily.

It was quite evident from the history and from the results of the urine tests that the patient was not on the diet prescribed. The blood sugar was 85 mgs., blood urea 18 mgs., blood calcium 10 mgs., per 100 c.c. blood. The qualitative tests for acetone and diacetic acid were negative.

After various attempts to control the diet it was learned that the patient was receiving food in addition to the ketogenic diet and he was placed in the hospital for study on March 1, 1926. For several days he was given a general diet and allowed

Age 10, Height 59½ inches, Weight 86½ pounds. Diagnosis Petit and Grand Mal.

Date, March	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Methods
Diet—Carbohydrate	277	175	169	K 10													10	
Protein	97	65	77	40													40	
Fat	113	94	104	178	Continuous.												178	
Total Calories	2584	1858	1976	1860													1860	
Weight (pounds)	86½		86¾	85¼	87	85¼	85	84	83¾	83¼	83¼	83	82½	83	82½	82½	83	
Attacks (Grand)	4	5	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	
Attacks (Petit)	0	0	0	0	9	8	3	3	0	0	0	0	0	0	0	0	0	
Fluid Intake 24 hr. c.c.	1400	1000	1200	800	1200	1400	1600	2000	1800	2100	1600	1800	2400	1800	1400	1600		
Urine: Amount 24 hr.	1400	1575	1075	1250	700	1460	1780	1650	1450	1600	1280	1760	2000	1940	1550	1850	1800	
Urine: Reaction pH. c.c.	7.7	7.7	7.1	5.5	4.8		5.4		5.4		5.4			5.4			5.4	Clark & Lübs Indicator
Urine: T. A. n/10 acid		28.2	69.8	218.7	350	305	360	245	319	312	332	281		202	276	234	280	
Urine: Total N.		9.95	7.6	8.45	9.8	7.8	8.64	5.4	7.3	6.7	6.3	5.3		4.1	5.3	5.5	4.98	Folin
Urine: NH_3N		.517	.527	.412	.604	.463	.552	.353	.551	.622	.634	.538		.420	.459	.668	.592	Van Slyke and Cullen
Urine: Acetone gm.		0	0	0	.067	.279	.776	1.18	2.1	1.66	2.6	3.98		1.6	2.76	2.72	2.86	Van Slyke
Urine: Diacetic Acid		0	0	0	0	Ft. tr.	tr.	tr.	+	+	+	+	+	+	+	+	+	Gerhardt
Blood: Sugar gm. 100 c.c.		.098	.108	.120	.133		.095		.086		.082		.080	.080	.020	.085	.089	Folin and Wu
Blood: Urea gm. 100 c.c.		.025							.017									Van Slyke and Cullen
Blood: CO_2 comb. power		68	60	63	71		62		50		58			52				Van Slyke
Blood: Calcium gm. 100 c.c.				.011							.013					.012		Kramer and Tisdall
Blood: Acetone bodies mg.		0	0	0	0		3.1		11.1		16.9			29.8	quant. serum			Van Slyke and Fitz

to eat whatsoever he desired in unrestricted amounts.

Beginning March 1, 1926, the food served was carefully weighed (cream and butter tested) and all food not eaten was returned to be deducted from the total. The amounts of carbohydrate, protein, and fat eaten are shown in the chart. Also, the attacks which occurred during this interval are charted.

After three days on the general (weighed) diet the boy was placed (without gradual reduction) on a diet of 10 gms. carbohydrate, 40 gms. protein, and 178 gms. fat. Studies of the resulting changes are shown in the accompanying chart.

BIBLIOGRAPHY

1. Peterman, M. G.: Journ. Diet, Adm. & Ther., 4:23 (Jan., 1926).
2. Talbot, Fritz B., Mary Hendry & Margaret Moriarity: Am. J. Dis. Child., 28:419 (1924).
3. Hoeffel, Gerald, and Margaret Moriarity: Am. J. Dis. Child., 28:16 (1924).
4. Peterman, M. G.: J. A. M. A., 84:1979 (1925).
5. Pfeiffer, H. Standenath, and Weeber: Klin. Wchnschr., 4:1122 (June, 1925).
6. Cuneo, Girolamo: Riv. sper. di freniat., 45:408 (Jan., 1922).
7. Osnato, Michael: Arch. Neur. & Psych., 9:488 (1923).
8. White-Robertson, A.: Brit. M. J., 2:1191 (Dec., 1924).
9. van Leeuwen, Sturm: Internat. Clinics, 2:55 (1923); 3:1 (1923); 3:200 (1924).
10. Popea, A., and A. Vicol: Compt. Rend. de la Soc. Biol., 93:747 and 749 (Aug., 1925).
11. Schon, H. I., and H. P. Stubbe: Hospitalstid, 68:49 (Jan., 1925).
12. Rafflin, R.: Compt. Rend. de la Soc. Biol., 92:1429 (May, 1925).
13. Georgi, F.: Klin. Wchnchr., 4:2053 (Oct., 1925).
14. Jensen, N.: Hospitalstid, 68:715 (July, 1925).
15. Peterman, M. G.: Am. J. Dis. Child., 28:28 (July, 1924).
16. Peterman, M. G.: Minn. Med., 7:708 (Nov., 1924).
17. Peterman, M. G.: Med. Clin. N. Am., 8:1351 (Jan., 1925).
18. Peterman, M. G.: Am. J. Nurs., 26:267 (April, 1925).

CARBON MONOXIDE POISONING FOLLOWING ETHYLENE ANESTHESIA

In the experience of William O'Neill Sherman, Charles M. Swindler and W. S. McElroy, Pittsburgh (Journal A. M. A., June 5, 1926), serious complications following ethylene anesthesia were encountered, with at least one fatality; another case which, in the light of subsequent events, could be ascribed to the same cause, and a third case in which the patient was dangerously asphyxiated. Among other experiments, the cylinder of ethylene was submitted to the Mine Safety Appliance Company of Pittsburgh, which evacuated the residual gas and, using a combustion chamber, found a carbon monoxide concentration of 0.7 per cent. Two other fresh stock cylinders of ethylene, labeled I and 2, were examined for carbon monoxide, with positive results. The whole problem is being further investigated in collaboration with the United States Bureau of Mines at Pittsburgh.

Aplastic Anemia; With Report of Two Cases*

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There is a type of severe anemia generally called aplastic anemia because the bone marrow in such cases makes little or no effort to regenerate blood cells. The term was first used to set aside a group of cases with aplastic marrow from those whose bone marrow became hyperplastic in a superlative effort to form new blood cells. Aplastic anemia is distinguished by a blood picture that indicates an inability of the hemopoietic tissue in the bone marrow to manufacture red and white blood cells and platelets, and is further characterized clinically by a very rapid course with fever and hemorrhages. Examination of bone marrow at autopsy reveals an atrophy of the blood forming tissues with their replacement to a great extent by fat. Although the term aplastic anemia is generally given to this condition, such names as palalytic anemia and aregeneratory anemia have been advocated.

At times this disease is caused by agents such as radium or roentgen ray, or by benzol or other chemicals. When the cause is known the condition is termed secondary aplastic anemia; and when the cause is not known then the term idiopathic aplastic anemia is applied. The cases presented are of the latter type.

CASE 1

The patient, a white single man, a steel worker, aged 42, entered the Milwaukee County Hospital on December 20, 1925, complaining of weakness and nose bleeding. The family history revealed nothing worthy of note; the previous history was essentially without bearing on the present illness. He had always been strong and denied venereal diseases. He felt perfectly well until two weeks before entrance to the hospital, when he was taken with a cold in the head and chest. This complaint caused him no more than ordinary distress until about one week before admission, when he had a severe attack of nose bleeding that weakened him to such an extent that he was compelled to stop work and remain at home in bed. His condition became worse and he came to the hospital where we first saw him.

Examination on December 20, 1925, showed a well developed man, who, judging from his pallor, had lost a great deal of blood, but apparently had lost very little weight. He seemed very sick and weak, and had fever 103°, a pulse rate of 110, and respiratory rate of 24. Both nostrils contained gauze packs, and clots of blood were seen in and around each pack. An attempt to remove a pack caused profuse hemorrhage. Over the left thigh, the entire back, and over the right lower leg on its inner surface, were purplish spots due to hemorrhage into the skin. The gums and soft palate were swollen, bloody, and painful. The lungs were normal, the heart sounds were weak, but no murmurs were present. The spleen and liver could be palpated. The B.P. was 100/70; the urine contained many red cells, a few white cells, and no casts. There were 1,830,000 red blood cells, 2,200 white blood cells, and 30 per cent hemoglobin. The stained specimen showed neutrophiles 22 per cent, lymphocytes 68 per cent, and 10 per cent of myelocytes. There were no nucleated red blood cells, and no platelets were seen. The red cells took the stain nicely, and no poikilocytosis, but slight anisocytosis, was present. No evidences of excessive blood destruction were noted. The blood culture and Wassermann were negative. The stools contained gross black blood, but otherwise were normal.

An injection of 15 c.c. of horse serum, which was repeated in 6 hours, was given with no notable results. He received a transfusion of 500 c.c. of blood which was followed by no benefit whatsoever.

The fever ranged between 102° and 105° during his stay in the hospital. On December 24, 1925, he sank into a muttering delirium followed by coma and died on December 25, 1925.

AUTOPSY—CASE 1

Post mortem examination performed by Dr. J. M. McEachern, revealed a fairly well nourished adult. The left leg had been amputated below the knee. There was a subconjunctival hemorrhage in the left eye and dried blood was noted in the nose and mouth. Small patechial hemorrhages were present over the shoulders and neck and a

*From the Medical Clinics of the Milwaukee County Hospital.

haematoma over the inner aspect of the right tibia. Intramuscular hemorrhages were found.

The thorax presented nothing of interest except an early pneumonia of the right middle lobe. Small hemorrhages were found throughout the gastrointestinal tract. The spleen (480 grams) was enlarged and the Malphigian corpuscles were hypoplastic with marked deposition of pigment. The bone marrow was extremely yellow and fatty; no areas of hyperplasia or hemorrhages were seen. On microscopical examination the striking feature was the great accumulation of fat to the exclusion of most of the blood forming cells.

CASE 2

S. S., a white girl aged 9, came into the Milwaukee County Hospital January 20, 1921, complaining of cough and bloody expectoration.

Family history: The parents were healthy; an older sister and a younger brother both seemed in excellent health. No history of any blood diseases or chronic diseases of any kind could be elicited.

Previous history: The child had been exceptionally free from childhood diseases and aside from frequent attacks of tonsillitis had never been sick.

Previous complaint: For one month previous to her entrance to the hospital the patient had been feeling miserable, and the rest of her family noticed that she had lost weight and had become more and more pale. This state of affairs continued until eight days before coming to the hospital when she began to cough and raise some clots of blood. She was put to bed; during the week of treatment at home the temperature was elevated, and the coughing of blood continued. A dull, aching pain developed in the area of the heart, and dizziness and weakness progressed so rapidly that she was compelled to remain in bed.

Examination revealed a poorly nourished, pale, asthenic child who coughed occasionally and raised some blood at times. The fever was 101°, the pulse 118, and respiratory rate 20. Except for diseased tonsils the head was quite normal. The mucous membranes were pale, but no bleeding was present.

The chest examination disclosed medium sized mucous rales at both middle and lower backs, but none at the apices. A systolic murmur was heard at the mitral area, but no irregularity or thrills were made out. The abdomen was not abnormal, and the spleen and liver were not felt. Urinanalysis gave negative findings. The B.P. was 98/58/40. Examination of the blood on January 22, showed red blood cells 920,000, white blood cells 1,200; Hb. 10 per cent; neutrophiles 22 per cent; large and small lymphocytes 70 per cent, transitionals 7 per cent; no basophiles, eosinophiles, megaloblasts, normablasts, or myelocytes were seen. A slight anisocytosis and poikilocytosis were noted. The platelets numbered 52,000. The resistance of the red blood corpuscles to hypotonic salt solution showed maximal resistance of 0.25 per cent and minimal of 0.35 per cent. Stool examination showed gross blood. A blood culture and Wassermann were negative, an x-ray examination of the heart and lungs showed no abnormalities. Two days after entrance January 23, 1921, she received a transfusion of 300 c.c. of citrated blood with no beneficial results. During the next several days the fever ranged between 100° and 103°, and except for the appearance of petechial hemorrhage over the chest, the patient's condition remained unchanged. The blood picture remained practically as stated above except that the red blood cells dropped to 720,000 per c.c. She sank rapidly into a comatose state and on January 31, 1921, ten days after admittance and 17 days after taking to bed, she died.

A postmortem examination could not be obtained, but the clinical and laboratory evidence seemed so conclusive that there was no hesitancy in calling this a case of idiopathic aplastic anemia.

CAUSE

The cause of idiopathic aplastic anemia is not known. Most observers believe that the trouble is produced by some poison that strikes at the centers of elaboration of the blood elements in the bone marrow. Rennie[1] believes it is due to a congenitally weak bone marrow which at an early age becomes unable to carry on the function of blood formation.

The onset, though generally described as insidious, may be sudden as shown by the cases reported here. The rapid course, the anemia, the hemorrhages from mucous membranes and into subcutaneous tissues, with the fatal ending within a month or two of the onset, are striking features of the clinical picture. A fatal outcome is not, however, an invariable event, as Parkinson[2] recently reported a case with an apparent recovery. The course is generally one of steady progress downward, although Herrman[3] cites a case with a definite remission.

The liver and spleen are as a rule not enlarged

and no abnormality of lymph glands is found on physical examination. Fever is a constant symptom. Evidences of excessive blood destruction, viz.: a lemon yellow tinge to the skin, an increased icterus index, and a positive van den Berg, all of which are found in pernicious anemia, are lacking in aplastic anemia.

The blood picture furnishes useful information from the diagnostic viewpoint and is usually quite conclusive. The blood picture reflects the status of the bone marrow as seen at autopsy, that is, a marked degeneration with insufficient regeneration to keep up with normal blood destruction. There is a leucopenia with a relative lymphocytosis; granular leucocytes are at times very scarce. The red blood cells are greatly decreased in number but appear normal in size and shape. The color index is less than one. Myeloblasts, myelocytes, megaloblasts, nucleated red blood cells, and platelets are usually absent, and if present at all are very few in number.

Ordinarily the diseases that are confused with aplastic anemia are pernicious anemia, purpura hemorrhagica and myelophthysic anemia. Aplastic anemia with secondary purpura may be difficult and even impossible to differentiate from idiopathic purpura hemorrhagica. The difficulty that confronts one here is appreciated by examining the work of Minot,[4] who believes there may be a relation between the two conditions and describes what he calls intermediate cases. He suggests that in some cases of idiopathic purpura hemorrhagica the bone marrow cannot respond to the stimulus received by hemorrhage as it should, and that the white and red cell elements of the bone marrow may have been depressed. Again Minot claims that the aplasia may involve the platelets markedly, the white cell elements of the marrow slightly, but not the red cell elements, for regenerative forms may be numerous. In idiopathic purpura hemorrhagica the white cell count is usually increased and the red cell count indicates normal response on the part of the red cell centers to furnish erythrocytes to the blood stream which has lost many cells through hemorrhage resulting from a thrombo penia. Here the decrease in platelet count is the first change noted in the blood picture; this reduction of platelets results in hemorrhage which precedes the anemia; later the red blood cells and white blood cells are diminished. This has led some investigators to believe that the poison responsible for this disease strikes the platelets first and later attacks the centers of origin of the other blood elements. In true idiopathic aplastic anemia the red and white blood cells are decreased before the platelet count goes down resulting in an anemia before hemorrhage. As emphasized by Minot,[4] transitional stages in these diseases are found and it is exceedingly difficult at times to say which one is present.

The differentiation is of some value in that transfusion and splenectomy may help patients with idiopathic purpura hemorrhagica, while such measures are useless in idiopathic aplastic anemia.

Myelophthisic anemia, or as it is called frequently, metastatic anemia, is produced by metastatic tumor nodules that crowd out the blood forming tissue in the bone marrow. The primary tumor may be in almost any organ; but the nature and origin of the tumor makes no difference in the anemia. The blood picture here is characterized by large numbers of myelobelasts and myelocytes and many nucleated red blood cells. The recognition of the primary tumor clinches the diagnosis.

The differentiation between aplastic and pernicious anemia has been a matter of dispute since the distinction between them was first made. Aplastic anemia is considered by some as a nonregenerative form of pernicious anemia. Lavenson[5] in 1906 concluded that aplastic anemia was a type of pernicious anemia and that the hemolysis of red blood cells and failure of regeneration of cells accounted for the blood picture. Musser,[6] on the other hand, saw marked differences between the two, and felt that there was no similarity in the courses of disease, the blood pictures. or autopsy findings. The absence of crises and remissions, the lack of regenerative phenomena, and the want of evidences of hemolysis were the chief differences emphasized by Musser.

In a recent article Marsh[7] concluded that pernicious anemia and aplastic anemia differed from each other clinically and pathologically. He founded his opinion on the following facts: 1. That aplastic anemia is a disease of rapid course and fatal ending with no remission, within a period of a few months. 2. Pernicious anemia usually comes on after the age of 35 while aplastic anemia usually appears at an earlier age. 3. The leucopenia is more marked in aplastic than pernicious anemia. 4. The red bone marrow is replaced by a fatty aplastic marrow in aplastic anemia; in pernicious anemia the bone marrow

becomes hyperplastic. 5. The gastro intestinal and neurological symptoms found in pernicious anemia are absent in aplastic anemia. 6. The evidence of excessive hemolysis, so prominent a feature in pernicious anemia, is lacking in aplastic anemia. 7. Aplastic anemia runs a febrile course, while pernicious anemia is essentially free from fever. That pernicious anemia may gradually change over into aplastic anemia is the belief of H. K. Williams,[8] who reported a case of definite pernicious anemia with crises, remissions and associated characteristics that slowly took on features of aplastic anemia and ended fatally after exhibiting typical finding of aplastic anemia. The autopsy sustained the clinical diagnosis.

The treatment of idiopathic aplastic anemia is very unsatisfactory; blood transfusions have been used with little or no success; in fact, no treatment seems to be of any value.

SECONDARY APLASTIC ANEMIA

Although the first case of idiopathic aplastic anemia was described by Erlich in 1888,[9] it is only within recent years that attention has been focused upon the secondary type. Cases presenting almost identical clinical pictures as the primary form of the disease have been assigned definite causes. These poisons or other physical agents have a predilection for the bone marrow. They do not, however, exert their influence upon all who are exposed to their action. This arouses the suggestion put forth by Rennie[1] as stated above, that this selective action is due to inherent defect of the bone marrow. That these poisons are in the nature of catalytic agents is a matter of some concern in prognosis, sufficient cases with end results have been published to suggest that this action is either cumulative or that they incite a reaction in a defective marrow from which the organism rarely recovers.

CLASSIFICATION OF SECONDARY APLASTIC ANEMIA

(a) 1. Measles
2. Scarlet Fever
3. Diphtheria
4. Typhoid
(b) Severe Hemorrhage
(c) Chemical Poisons
1. Benzol
2. Trinitro toluene
3. Arsenic
(d) X-rays

Secondary aplastic anemia has followed such infections as measles,[2] scarlet fever,[3] diphtheria[4] and typhoid fever.[5] So rare is this complication that Sheard[10] believes their association a mere coincidence; not so, however, with the chemical marrow poisons. Hamilton[11] in pointing out the wide use of benzol in industry has emphasized its grave menace to the industrial worker.

The classical cases reported by Santesson[12] in 1897 first drew attention to benzol as a cause of aplastic anemia. Nine young women were employed in a bicycle tire factory using benzine rubber cement. Purpura, leucopenia and anemia were the outstanding symptoms following this exposure. Selling[13] in 1910 reported three cases with purpuric eruptions which had been exposed to benzol fumes. He noted that the polymorphonuclear cells, the platelets, and finally the red blood cells underwent destruction. Post mortem examination in two instances reveaed an aplastic marrow. These workers also produced the symptoms and findings of the disease in animals by means of benzol injections.

In cases where the marrow is severely damaged the evidence would seem to prove that a progressive leucopenia is a most valuable sign and index in prognosis.

The gross and microscopic pathologic anatomy is identical with the primary form. Interesting conclusions are drawn by Selling[13] in the course of experimental aplasia. He concludes that benzol is a powerful leucotoxin destroying the white blood cells peripherally and at their origin in the marrow.

The cells of lymphatic origin are relatively unharmed. The initial rise of platelets in benzol poisoning up to 1,230,000 followed by a rapid fall, noted by Duke,[14] lends support to the view that the mechanism is one of primary stimulation followed by aplasia. He confirms Selling's work and adds that the destruction of myelogenous elements occurs in the following order:

(a) Polymorphonuclear elements.

(b) Blood platelets and their progenitors, the megacaryocytes.

(c) Adult red cells.

All others note the absence of hemolysis or other evidences of red cell destruction in aplastic anemia due to benzol.

The studies of Hektoen[15] and Weiskotten[16] were concerned with the effect of the toxin on antibody formation. The lowered resistance to disease was found due to the reduction of leucocytes, of leucocytic activity, and actual antibody loss.

Many manufacturers now use benzol in their factories. It is used in refining and dissolving fat and grease, as a paint remover, in colors and dyes, in varnish, in the rubber industry, in dry cleaning, and in the manufacture of rapid drying paints.

The history of exposure is the most important diagnostic point. Gwyn[17] summarizes the early symptoms as a failure in strength, drowsiness, anorexia, vomiting, mental depression, hemorrhages, purpura, and fever. The earliest sign is a leucopenia which rapidly drops to 400 or less. The polymorphonuclears are destroyed and there is a relative lymphocytosis. The platelets are low and the red blood cells are finally diminished. The color index remains normal, no regenerative forms are seen nor is there any evidence of red cell destruction; there is normal hemolysis in salt solution. A depression in blood pressure occurs. Gwyn notes that the coagulation time of the blood is increased up to fourteen minutes. The differential diagnosis must be made from the primary form, from purpura hemorrhagica, and from an aplastic phase of pernicious anemia.

Treatment is generally conceded to be unsatisfactory, even when the poison is withdrawn. When the white count is below 2,000, the prognosis is indeed grave. The only therapy which has received favorable comment is repeated transfusion. McClure[18] and Minot[19] obtained good results with this, and Gwyn cites a case with a red cell count of 600,000, W.B.C. 1,200, Hb. 20, which recovered by this measure.

During the war the wide use of Trinitrotoluene in the manufacture of explosives led to many cases of aplastic anemia. This led to an exhaustive study by the Medical Research Council. In these days of peace the menace of this poison has lessened. In poisoning by this agent the bone marrow first becomes hyperplastic, a condition mirrored in the blood picture, but the end result is a hypoplastic marrow. The blood changes are always preceded by jaundice.

Arsenic as a cause of aplastic anemia follows as a rule the use of neoarsphenamine. An early sign is an eosinophilia with a leucopenia which later changes to the characteristic picture. These cases are rare; some seven or eight cases have been reported.

BIBLIOGRAPHY

1. Rennie, quoted by Sheard, A.: Pernicious Anemia and Aplastic Anemia, New York, William Wood & Co., 1924, p. 47.
2. Parkinson, J. P.: Brit. Jour. Child. Dis., 16:1, Jan.-March, 1919.
3. Herrman, C.: Amr. Jour. Dis. Child., 23:484, June, 1922.
4. Minot, G. R.: Arch. Int. Med., 19:1062, June, 1917.
5. Lavenson, R.: Tr. Assn. Amr. Phys., 21:307, 1906.
6. Musser, J. H., Jr.: Arch. Int. Med., 14:275, Aug., 1914.
7. Marsh, P.: Abstract, Progressive Med., 2:372, June, 1925.
8. Williams, H. K.: Guy's Hosp. Rep., 76:87, Jan., 1926.
9. Ehrlich, quoted by Sheard, A.: Pernicious Anemia and Aplastic Anemia, New York, William Wood & Co., 1924, p. 41.
10. Sheard, A.: Pernicious Anemia and Aplastic Anemia, New York, William Wood & Co., 1924, p. 41.
11. Hamilton, A.: J. A. M. A., 78:627, Mar. 4, 1922.
12. Santesson, T., Arch. F. Hyg., 31:336, 1897, quoted by Selling.
13. Selling, F.: Johns H. H. Bull., 21:33, Jan., 1910.
14. Duke, T. R.: Arch. Int. Med., 11:100, March, 1913.
15. Hektoen, F.: J. Infec. Dis., 19:69, July, 1916.
16. Weiskotten, H. G., Et al.: J. Med. Res., 41:425, May, 1920.
17. Gwyn, N.: C. M. A. J., 16:275, Mar., 1926.
18. McClure, R. D.: J. A. M. A., 67:793, Sept. 9, 1916.
19. Minot, G. R., Et al.: Arch. Int. Med., 17:101, Jan., 1916.

Stereoscopic Head and Dental Roentgenograms

SUMMARY OF PAPER BY L. M. WILLARD, M.D.
Wausau

The use of the radiogram, both single and stereoscopic, as an aid in diagnosis is regular practice, of course, but the employment of the stereoscopic principle in head pictures is the unusual practise advocated by Dr. L. M. Willard in a paper presented to the Central Wisconsin Society of Ophthalmology and Oto-Laryngology, May 26, 1926, at Wausau, Wisconsin. He recited a brief history of stereoscopic photography, dwelling at length upon the application of the principle to Roentgenology.

It is of course understood that the ordinary roentgenogram has but two dimensions, lacking the third dimension of depth. The picture shows all the structures, but it fails to show any of the

X-Ray of the Head.

anatomical relations—it is indeed a "flat" picture. Binocular single vision, it was reviewed, gives that essential third dimension, setting out objects in relief. In no structures of the human body is the employment of the stereoscopic principle of greater value than in the case of the head. Here the complexity of the osseous structures is bewildering, indeed; but when these same structures are presented in stereoscopic pictures, lo! new worlds are revealed.

The really unique feature of Dr. Willard's demonstration was the reduction of these stereoscopic pictures to the size of a stereopticon slide and their projection upon the screen. There would be no advantage in this, of course, unless these two pictures upon the screen could be viewed as should be done in the case of all stereoscopic pictures. Here the doctor's ingenuity evolved a simple scheme that proved to be wholly practical. To a pair of ordinary opera glasses was attached an adapter which added to each eye piece a prism. This combination enabled the spectator at a distance of twenty to thirty feet from the screen to behold the two pictures with true stereoscopic effect. This demonstration was enjoyed by all present.

In addition to the production of stereoscopic head pictures, the subject of intraoral stereoscopic radiography was explained at length, this being of particular interest to the dentist and rhinologist. The impracticability of making these exposures with a target separation of the usual 60 or 70 mm. as advocated by some manufacturers of x-ray dental apparatus was explained as being due to the limited field of observation. The central rays, with a 2½ or 3 inch target separation would converge upon the film at an angle of 14 to 19 degrees with a 10 inch distance between target and film. With such a procedure the stereoscopic field appears to be very much limited, therefore a target

Dental x-ray showing dislocated, impacted tooth in antrum.

parallel separation of about ⅗ inch or a separation of 1½ inch at the target and ⅗ inch on the film was adopted as giving uniformly satisfactory results, the angle of convergence in the latter case being only about 5 degrees. The fact that animals with only slight inter-pupillary distance have binocular single vision is but proof that for all practical purposes, dental pictures produced according to this technic are fairly accurate and true when viewed by man with any degree of pupillary distance.

Several hundred very interesting stereoradiograms taken from their own clinical material were viewed in the Bluhm Binocular Dentascope, an instrument manufactured for the purpose of viewing two negatives from the same pack, which illuminated and gave considerable magnification to the pictures, but this system does not give the third dimension. When a prism is added to one eye piece and a stereoscopic dental roentgenogram taken by the Willard-Kolter technic is used, a registration on the whole field of a dental film is obtained. These roentgenograms not only give a perspective of the teeth, but include a wonderful view of the antrum and the floor of the nose.

The great variance in the structure of the maxillary sinus was shown in these views; points of interest, that could not possibly be interpreted in the flat pictures, stood out with a clarity that was astonishing, and it was very evident that while the value of almost any dental picture would be greatly enhanced by the production of stereo-radiograms, the employment of this principle is almost invaluable in the study of dental infections, particularly in the maxilla, in the diagnosis of maxillary sinusitis, in the localization of impacted, unerupted or supernumerary teeth, and is a practice greatly to be preferred to a number of hit-and-miss exposures at various indeterminate angles.

As in the case of the head pictures, these dental stereo-radiograms were also projected upon the screen and studied with the aforementioned special opera glass. A comparison was made between

the flat picture with its many debatable points and the stereoscopic in which the questionable elements were cleared up.

Several years ago, Dr. Willard secured the co-operation of J. H. Kolter, D.D.S. His x-ray apparatus used for dental pictures had adjustments that made it applicable to Dr. Willard's technic, and together they have worked out very simple rules by which dental stereo-radiograms can be taken. Their technic can be easily learned and mastered, therefore the production of stereo-radiograms is divested of all complicated technicalities and is reduced to a plane that is wholly practicable.

Dr. Willard also showed on the screen stereoscopic pictures of patients on whom he had performed radical frontal sinus operations. In viewing these stereograms on the screen, about thirty observers can be grouped at one time, each with an adjustable combination opera glass-stereoscope.

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

Ten-Year Study of Tuberculosis Deaths*

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Racine

TABLE I: POPULATION, TUBERCULOSIS DEATHS AND DEATH RATES

Year	Population	Deaths†	Rate per 100 M
1916	52,000	51	98.0
1917	56,000	66	117.8
1918	58,000	51	87.8
1919	55,100	52	94 2
1920	58,593*	45	76.7
1921	59,422	39	65.6
1922	62,816	53	84.4
1923	64,528	39	60.4
1924	66,710	33	51.0
1925	67,700	39	57.6
Total		468	

*Official census, other population figures estimated.

†Corrected for sanatorium deaths, and including non-residents dying in Racine hospitals.

The number of tuberculosis deaths in this study is greater than will appear in the official records, because all death certificates upon which tuberculosis appeared as a primary or secondary cause were used regardless of whether the classification by the International List of Causes of Death would have included them in the tuberculosis group.

TABLE II: TYPES OF TUBERCULOSIS CAUSING DEATHS IN VARIOUS AGE GROUPINGS—1916-1925

Age	Pulmonary*	Intestinal†	Glandular	Osseous	Miliary	Meningeal	Total
0- 1	2	0	0	0	1	6	9
1- 2	3	0	1	0	0	6	10
2- 5	3	3	0	0	0	11	16
6-10	1	3	0	0	2	3	10
11-20	37	4	0	0	4	4	49
21-30	134	7	0	0	3	1	145
31-40	87	3	2	0	0	2	94
41-50	55	3	1	2	1	1	63
51-60	35	0	0	1	0	0	36
61-70	18	2	1	0	0	1	22
Over 70	9	0	0	0	0	0	9
Total	384	25	5	3	11	35	463

*Including thoracic glands.

†Including mesenteric glands.

The classification by types takes into consideration only the primary cause of death except where the primary cause was not tuberculosis, and tuberculosis was certified as a secondary cause of death.

TABLE III: AVERAGE AGES AT DEATH

Year	Average Age
1916	27.2
1917	24.6
1918 (Influenza year)	28.0
1919	29.1
1920	34.2
1921	34.4
1922	34.4
1923	30.5
1924	33.7
1925	36.5

The purpose of this analysis was to determine whether the average age of death from tuberculosis had increased or decreased.

TABLE IV: TOTAL DEATHS AND TUBERCULOSIS DEATHS AGES 20-40 INCL.; SHOWING PER CENT OF TOTAL DEATHS DUE TO TUBERCULOSIS

Year	Total Deaths	Tuberculosis Deaths	Per cent of Total due to TB.
1916	84	30	35.8
1917	96	33	24.4
1918	240*	27	11.2*
1919	110	33	30.0

1920	121	27	22.3
1921	79	21	26.8
1922	77	27	35.1
1923	81	17	20.9
1924	69	16	23.2
1925	56	16	28.5
10 years	1,013	247	24.4

*Epidemic influenza causes distortion of all ratios.

This Table shows that while the general tuberculosis death rate is falling and tuberculosis ranks lower in the list of causes of death than was the case ten years ago, it is still a major problem in the prime of life, and particularly is it of importance with respect to the question of breaking up families and causing orphanage.

TABLE V: Total Tuberculosis Deaths and Per cent Occurring at Ages 20-40 Years

Year	Total TB. Deaths	TB. Deaths age 20-40	Per cent
1916	51	30	58.8
1917	66	33	50.0
1918	51	27	52.9
1919	52	33	63.4
1920	45	27	60.0
1921	39	21	53.8
1922	53	27	50.9
1923	39	17	43.5
1924	33	16	48.5
1925	39	16	41.0
Ten years		247	52.7

This table shows a slightly different presentation of the fact that most tuberculosis deaths occur during the years when earning power should be in its prime and when family responsibilities are likely to be most important.

TABLE VIII: Place of Death

	Male	Female	Total
Home	166	163	329
General Hospitals	26	10	36
Sanatoria	68	32	100

This table eloquently reflects the general lack of appreciation on the part of the people of the importance of sanatorium care. It also shows that if sanatorium care were appreciated and demanded as it should be there would be a great shortage of sanatorium beds.

TABLE IX: Nativity of Mother

	Male	Female	Total
United States	59	70	129
Scandinavian countries	45	35	80
Germany	43	46	89
British Isles	20	10	30
Italy	7	5	12
Austria	22	6	28
Bohemia	12	6	18
Armenia*	9	1	10
Holland		3	3
Canada	1		1
Other countries	23	12	35
Unknown	19	11	30

*Including Armenians born in Turkey.

Tracing the nativity of decedents through the nativity of the mother is of importance only when the ratio can be determined of the deaths in each nationality to the total population of the same. This we have not yet been able to do, though a general knowledge of the proportion of the various nationalities in our population leads us to believe that the above table does not point to any particular racial predilection.

TABLE XI: Primary Causes of Deaths in Cases Where Tuberculosis Was Certified as an Additional or Secondary Cause

Cause	Male
Acute endocarditis	1
Aortic stenosis	1
Diabetes	1
Lobar pneumonia	2
Total	5

These deaths are not numerous enough greatly to affect the other analyses and are included in the other tables as if they were deaths from tuberculosis.

TABLE XII: Types of Tuberculosis Certified as Secondary Causes of Death

Secondary Cause	Primary Causes					
	Pulm.	Intest.	Gland.	Bone	Mening.	Mil.
Pulmonary	x	4	—	—	4	1
Intestinal	19	x	—	—	1	2
Glandular	1	—	x	—	—	—
Osseous	4	1	—	x	1	—
Meningeal	3	—	1	—	x	—
Miliary	—	2	—	—	2	x
Kidney	3	—	—	—	—	—
Laryngeal	8	—	—	—	—	—

This analysis brings out the frequency with which pulmonary and the other forms of tuberculosis are associated.

This next table is an analysis endeavoring to give information as to the reduction, if any, in the types of tuberculosis most common in childhood. Whether or not improvement in the milk supply has anything to do with the tendency shown in this table, it is too early to determine. Effective milk control was begun in Racine in May, 1924.

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*Sources of Data: Racine Health Department, Racine County Register of Deeds, Sunny Rest Sanatorium and Field Follow-up. Compilations and Follow-up: Miss Anna Makis, R.N., Racine Health Department.

TABLE VI: DEATHS BY YEARS AND TYPES

Types	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	Total
Pulmonary*	43	52	40	44	37	28	46	31	27	36	384
Intestinal†	1	4	2	4	3	4	1	2	2	1	25
Glandular	2	0	0	1	0	0	1	0	0	1	5
Osseous	0	0	0	0	0	2	0	0	0	1	3
Miliary	0	2	2	1	1	1	2	2	0	0	11
Meningeal	3	8	7	2	4	3	1	4	3	0	35
Total	49	66	51	52	45	38	51	39	32	39	463

*Including thoracic glands.

†Including mesenteric glands.

TABLE VII: SEX AND CIVIL CONDITION OF DECEDENTS

		1916		1917		1918		1919		1920		1921		1922		1923		1924		1925		Total
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Single,	male	12	—	23	—	17	—	8	—	13	—	8	—	11	—	13	—	10	—	11	—	126
	female	—	8	—	15	—	11	—	8	—	12	—	11	—	12	—	8	—	6	—	8	99
Married,	male	11	—	17	—	9	—	13	—	10	—	8	—	15	—	5	—	9	—	7	—	104
	female	—	14	—	8	—	7	—	18	—	4	—	11	—	12	—	7	—	5	—	10	96
Widowed,	male	1	—	3	—	4	—	3	—	1	—	0	—	0	—	3	—	1	—	3	—	19
	female	—	2	—	2	—	0	—	1	—	1	—	0	—	1	—	3	—	1	—	1	12
Divorced,	male	0	—	0	—	3	—	0	—	2	—	1	—	0	—	0	—	0	—	0	—	6
	female	—	0	—	0	—	0	—	1	—	1	—	0	—	0	—	0	—	0	—	0	2
Unknown,	male	0	—	0	—	0	—	1	—	0	—	0	—	0	—	0	—	0	—	0	—	1
	female	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	0
Total		24	25	44	25	33	18	25	26	26	18	17	22	28	25	21	18	21	12	21	19	466

This table should be considered in conjunction with Tables III, IV and V. The large number of married persons dying of tuberculosis is of great importance with respect to the problem of broken homes.

TABLE X: DEATHS BY SEASONS

*Dec. of one calendar year, Jan.-Feb. of the next. **Jan.-Feb., 1916, Dec., 1925.

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	Total
Spring Quarter— March-April-May	13	25	24	16	14	9	17	15	14	7	154
Summer Quarter— June-July-Aug.	18	20	14	16	10	6	9	6	5	10	114
Fall Quarter— Sept.-Oct.-Nov.	10	16	3	8	10	13	16	7	7	9	99
Winter Quarter*— Dec.-Jan.-Feb.	10**	7	8	12	14	11	6	12	6	10	96

The above table showing the smallest number of tuberculosis deaths in the seasons of high respiratory disease prevalence may indicate an actual seasonal variation in tuberculosis mortality or may be due to the masking of true tuberculosis deaths under deaths from intercurrent causes, such as influenza, the pneumonias and other contagious diseases.

TABLE XIII: THIRTY DEATHS OCCURRING IN 13 GROUPS OF TWO OR MORE DEATHS IN SAME FAMILY OR IN THE SAME DWELLING

Group	First Death			Second Death				Third Death			
	Date	Age	Name	Date	Age	Relationship to 1st Decedent	Interval*	Date	Age	Relationship to 1st Decedent	Interval*
1.	4/11/18	49	P. W.	4/12/18	55	Brother	1 d.	5/10/18	47	Sister	1 mo.
2.	5/25/17	9 mo.	M. C. N.	8/ 7/18	30	Mother	15 mo.				
3.	5/11/20	3	B. R.	5/31/20	40	Father	21 d.				
4.	9/23/16	21	E. E. L.	10/24/21	23	Cousin	1 mo.				
5.	3/20/21	25	L. O.	6/ 2/21	34	Sister	3 mo.	2/22/26	25	Sister-in-law	56 mo.
6.	12/22/21	43	Mrs. E. B.	9/30/22	17	Son	9 mo.				
7.	7/29/22	48	J. L. D.	9/16/23	16	Son	14 mo.				
8.	11/ 7/23	23	M. W.	12/16/23	2	Daughter	1 mo.				

9.	7/10/16	26	J. G. N.	3/ 4/18	18	Unknown	20 mo.	8/15/21	51	Unknown	39 mo.
10.	4/25/23	18	G. P.	6/15/23	16	Sister	2 mo.				
11.	6/21/20	68	T. J. C.	9/13/21	33	Niece	15 mo.	?	?	Niece	?
12.	3/30/20	24	E. L. G.	2/11/21	35	Brother	11 mo.				
13.	11/ 6/22	43	S. S. L.	1/ 2/23	6 mo.	Daughter	2 mo.				

*Average interval between 1st and 2nd deaths, 7.2 months.

*Average interval between 2nd and 3rd deaths, 32.0 months, 1 interval unknown.

Condition of Remaining Relatives of First Decedent

1. Unable to locate.
2. Unable to locate father.
3. Unable to locate mother.
4. All well; no TB. history except deaths recorded here.
5. Mother-in-law died TB. 1919; father L. & W.; brother not well (TB.?) has 2 children L. & W.
6. Father L. & W.
7. Mother and son, 14, L. & W.
8. Father L. & W.; second wife L. & W.
9. These deaths at different addresses, branches of same family; others L. & W.
10. Sister has TB. of hip; mother is active case; both under treatment.
11. Moved to Chicago. Sisters.
12. Moved away.
13. Husband and son (age 4) L. & W. Others in house L. & W.; not related.

The data for this table was secured by the field follow-up of the groups selected. It is our impression that with more adequate follow-up in the past we would have been able to trace more groups than 13 and to account for relationships in a larger number of deaths than the 30 represented in this table out of a total of 463.

THE JOURNAL CLINIC

Mercuric Chloride Poisoning; With Report of Case

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Suicidal poisoning with mercuric chloride is not so prevalent as it was a few years ago, but such cases do occur as well as those in which the ingestion of bichloride of mercury tablets is accidental.

The purpose of this paper is to record a case of bichloride of mercury poisoning, to present in concise form the indicated therapeutic procedures, and to remark the apparent futility of decapsulation.

REPORT OF CASE (47496)

Mrs. X, 28 years of age, took eight bichloride tablets containing 1.8 gr. of mercuric chloride each, early in the morning before breakfast. The fact that the drug was taken on an empty stomach was, I believe, a factor in the rate and extent of absorption from the alimentary tract.

Vomiting ensued within a few minutes and was persistent. A physician was called and arrived within one-half hour. Gastric lavage with milk was attempted and white of egg was given. The patient remained at her home until the next morning, during which time practically nothing was done. She had voided only once, 3 or 4 hours after taking the tablets. She was brought to the Methodist hospital 24 hours after ingestion of the poison, when I first saw her.

Treatment with sodium thiosulphate, 2 c.c. intravenously, and 5 c.c. per rectum, was administered, but the rectal dose was expelled. Vomiting interfered with giving the drug by mouth. An intense diarrhea developed which made any rectal medication impossible. Three to five cubic centimeters of sodium thiosulphate were given intravenously on three occasions during the next twenty-four hours.

The second day a course of treatment was instituted as outlined by Rosenbloom[1] and carried out on the 71 cases reported by Gatewood and Byfield[2]. This consists in administering large quantities of calcium sulphide solution by mouth; gastric lavage with ten times as much sodium thiosulphate solution as poison taken, intravenous injection of 800 c.c. of bicarbonate-glucose solution after the withdrawal of 600 c.c. of blood; proctoclysis with a solution containing 1 dram potassium acetate, 4 drams glucose and 3 drams sodium bicarbonate

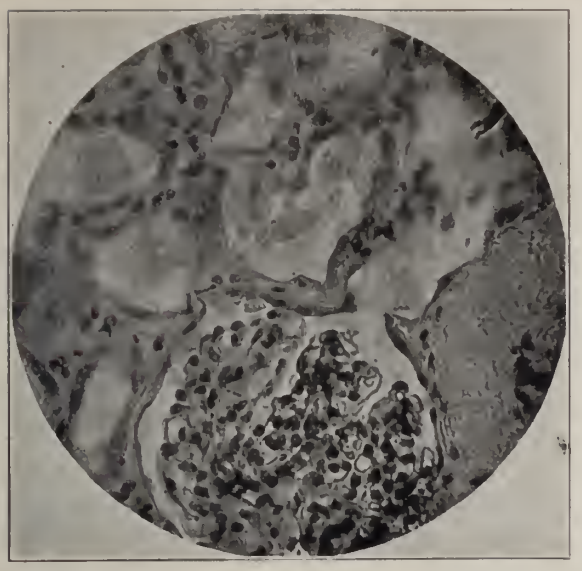

Fig. 1. Typical section from left kidney showing complete cellular degeneration in the tubular portion more marked in the proximal convoluted tubules. Practically no change is shown in the glomerular epithelium except some degeneration of the cells lining Bowman's capsule.

to the pint; high colonic irrigations of warm water and the application of hot packs twice daily; and the administration of 8 oz. of milk every second hour alternating with 8 oz. of solution of:

Potassium bitartrate.....dr. j
Sodium citrate.....dr. j
Sucrose .....dr. j
Lactose .....dr. iv
Lemon juice.....oz. j
Boiled water.....oz. xvj

In addition 5 c.c. of one per cent sodium thiosulphate was administered at 4-hour intervals for the next three days and 500 c.c. of 10 per cent glucose was given every day, instead of every other day.

On the evening of the third day, about 66 hours after the ingestion of the mercury, both kidneys were decapsulated by Dr. Herman Kretschmer of Chicago. Dr. Kretschmer advised that decapsulation would not jeopardize the patient's chances for recovery, but would probably have no beneficial effect.

At the time of admission general physical examination revealed nothing of importance. The patient was an unusually well developed and previously healthy individual. As no urine was voided or obtainable by catheterization during the entire period of observation, a chemical analysis could not be made. Blood was taken for non-protein nitrogen and urea determinations once and at times twice a day, and daily blood pressure readings were recorded. A complete blood count on

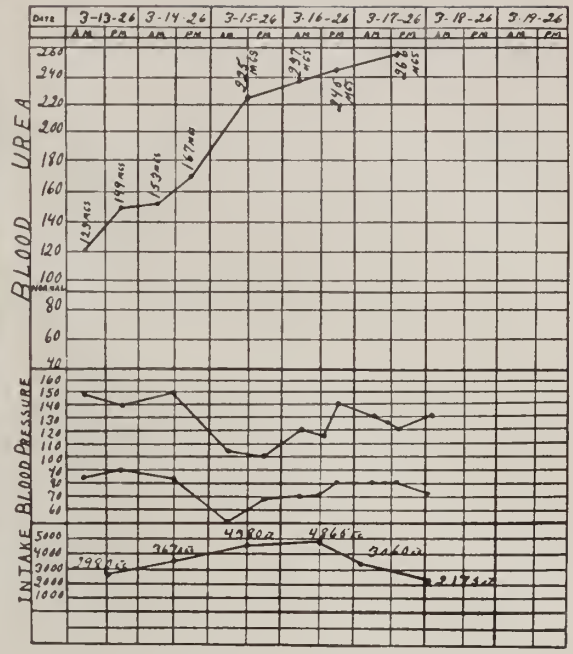

Fig. 2. Graphic chart showing characteristic rise in blood urea. The blood pressure findings would indicate no vascular change in the kidney which might result in hypertension. The fluid intake was high with complete anuria.

admission showed a normal blood picture, but blood counts and hemoglobin estimations were not made after the first day. The accompanying graphic chart shows the characteristic retention of nitrogenous bodies with practically no variation in the blood pressure. The patient did not develop true uremic symptoms until the last day of her life when she displayed marked muscular irritability as evidenced by twitching and slight convulsive seizures and mental excitability followed by drowsiness and coma.

The question of decapsulation in different types of nephritis, including that caused by mercury, has been discussed pro and con ever since Sahli's suggestion in the early nineties that surgical intervention be undertaken in chronic nephritis. Rollwage[3] has recently reviewed the literature quite thoroughly and reported two cases of sublimate poisoning in which he performed decapsulation. Although both cases terminated fatally, he seemed to think life was prolonged a few days by the operation. About the only acceptable plea he made for decapsulation was that the operation would permit a study of the micropathology relatively early in the course of the disease and afford opportunity for comparison with the findings at autopsy.

At operation on the case reported here the kidneys were exposed through 5-inch lumbar incisions, and presented a somewhat swollen, con-

gested appearance with blanched areas of necrosis. The capsules split and stripped very easily from both kidneys.

Pieces taken from each kidney for microscopic examination presented the familiar and characteristic picture of tubular degeneration in mercuric chloride poisoning (Fig. 1). The sections revealed practically no glomerular change. Some of the cells lining Bowman's capsule showed degeneration, but there was apparent regeneration in others.

There was no demonstrable vascular change other than a passive congestion. This would explain the absence of any change in the blood pressure; renal hypertension, as shown by MacNider[4], being dependent on a spastic change in the renal vascular bed, and not associated with any congestive condition.

The extensive and almost complete destruction of tubular epithelium, especially in the proximal portions of the convoluted tubules which are the most highly specialized cells in the kidney, within a period of about 60 hours, is the most significant feature of the sections. Just how much sooner this change took place is problematical, but Menten[5] has shown that well defined microscopic lesions are apparent in the cells of the proximal convoluted tubules within five minutes after the intravenous injection of such extremely small amounts of mercuric chloride as 0.0002 to 0.0001 gm. per kilogram of body weight. This being true, the extent of renal damage and the rapidity with which it ensues in mercuric chloride poisoning would depend on the rate and amount of absorption from the alimentary tract. In the case reported, the drug was taken early in the morning before breakfast, so that the rate and amount of absorption were probably greater than if the stomach had contained food.

This brings up a point for discussion in therapy; that is, the importance of recovering as quickly as possible by repeated gastric lavage all of the mercury it is possible to eliminate in this way. Weiss[6] has demonstrated the presence of mercury in the blood stream three minutes after mercuric chloride was placed in the stomach. He has shown that mercury could be detected in the stomach washings as late as the eleventh day, and accordingly emphasizes the necessity of repeated gastric lavage until no trace of mercury can be detected in the gastric contents. It seems to me, however, that the finding of mercury in the stomach after repeated lavage may be due to resecretion of the poison by the liver into the intestinal tract rather than to its retention in the stomach.

If this contention be correct, it supports the practice of giving large doses of sodium thiosulphate intravenously as early as possible. This drug, introduced by Dennie and McBride[7] in 1924 for the treatment of arsenical dermatitis, has been used to some extent in the treatment of intoxications with heavy metals, such as mercury, bismuth, and lead. Just what the chemical action of sodium thiosulphate may be is still a matter of conjecture. Some hold that the cell is poisoned because of the combination of a heavy metal with the cell proteins, producing a heavy metal proteinate, and that sodium thiosulphate medication by mass action frees the heavy metal from the cell protein, rendering it again soluble and available for excretion. Others believe that sodium thiosulphate combines with the soluble mercuric chloride to render it into an innocuous, insoluble mercuric sulphide.

Whatever the character of the reaction it suffices at this time to say that if such therapy is instituted, it should be given as early as possible after the ingestion of mercury and continued as long as any mercury can be detected in the excretions or until there is a marked clinical change for the better.

The retention of nitrogenous bodies as shown by the urea determination is a familiar and characteristic finding in the nephritis of mercury poisoning. This condition, however, is associated with acidosis, and early and energetic administration of alkalies is necessary to combat it. Soda bicarbonate, 4 per cent solution intravenously, calcium and potassium acetate by mouth and per rectum in the absence of diarrhea, should be given early and repeatedly.

SUMMARY

Mercuric chloride poisoning is not as popular a method of suicide as in previous years, but occasional cases of suicidal intent and accidental poisoning do occur. Such cases demand the immediate institution of emergency measures.

As much mercury as possible should be removed by gastric lavage which should be done early and repeatedly (several times a day) and continued throughout treatment.

Fluid, 3,000 to 4,000 c.c. a day, should be administered rectally or intravenously with copious colonic flushings twice a day.

Sodium thiosulphate (2 gm. at a dose) should

be given intravenously every few hours as early as possible to obtain whatever beneficial effect the drug may possess.

Acidosis should be combated by the administration of alkalies which may be given rectally, intravenously, or if vomiting does not interfere, orally.

There would seem to be no renal condition the result of mercury poisoning which might be relieved by decapsulation. The pathological change is one of tubular epithelial degeneration and is not accompanied by any notable swelling of the kidney which would further interfere with renal function or be relieved by decapsulation.

REFERENCES

1. Rosenbloom, J.: Acute bichloride of mercury poisoning treated by newer methods. Am. J. Med. Sc., 1919, 57:348-356.

2. Gatewood, L. C., and Byfield, A. F.: A clinical report on acute cases of mercuric chlorid poisoning. Arch. Int. Med., 1923, 32:456-463.

3. Rollwage, F.: Nierendekapsulation bei Sublimatvergiftung. Mitteil. a. d. Grenzgeb. d. Med. u. Chir., 1921-22, 34:374-391.

4. MacNider, W. D.: A study of acute mercuric chloride intoxication in the dog with special reference to kidney injury. J. Exper. Med., 1918, 27:519-538.

5. Menten, M. L.: Pathological lesions produced in the kidney by small doses of mercuric chloride. J. M. Research, 1923, 43:315-321.

6. Weiss, H. B.: Mercuric chlorid poisoning. Arch. Int. Med., 1924, 33:224-229.

7. Dennie, C. C., and McBride, W. L.: Treatment of arsphenamine dermatitis, mercurial poisoning, and lead intoxication. J. A. M. A., 1924, 83:2082-2085.

8. Stukowski, J.: Zur Klinik und Therapie der Sublimatnephrose. Deutsche med. Wchnschr., 1923, 49:1486-1488.

Shoe-Dye Poisoning; Report of Case*

BY E. H. TOWNSEND, M.D.

La Crosse

To the steadily increasing number of cases of shoe-dye poisoning, I should like to report another for statistical purposes:

J. H., boy, age 14 yrs., put on a pair of shoes which had just been dyed black. He wore them from about noon, until 6:00 P. M. of the same day, being on his feet continuously as a delivery boy.

About 6:00 P. M. he became very weak and nauseated, and was forced to go home, where he fell into a faint. His parents noticed that he was extremely blue and sent for a physician.

He was seen by me about 7:00 P. M., at which time he was extremely weak and cold, and could be aroused only with great difficulty. If he attempted to sit up he became unconscious. He was peculiarly cyanotic, his appearance much resembling that of one who is seen under the light of a mercury lamp. The pulse was slow and scarcely perceptible at the wrist.

An immediate diagnosis of probable shoe-dye poisoning was made. His shoes were called for and were seen to have been recently dyed, still being moist and smelling strongly of aniline.

Treatment consisted of washing feet thoroughly with soap and hot water, putting patient in tub of water as hot as he could bear it for 20 minutes, stimulating him with drinks of strong coffee, and giving him aromatic spirits of ammonia and digitalin.

He showed steady improvement and in twelve hours the cyanosis had entirely disappeared, although he was still weak. At present he has entirely recovered.

*Report of a case from Group of Doctors Simones, Townsend & Gallagher, reported by E. H. Townsend, M.D., La Crosse. Wisconsin.

ABSORPTION FROM LOWER RESPIRATORY TRACT

According to H. J. Corper, Denver (Journal A. M. A., June 5, 1926), the general problem of the absorption of liquids is intimately associated with the biology of the body cell, since all fluids and particulate substances passing into or out of the human economy or from one tissue to another do so through the medium of the cell, the existence of stomas as once maintained by von Recklinghausen being now denied. Osmosis and diffusion play an important part in absorption and resorption of liquids, but there are certain unexplained "vital" factors concerned. That phagocytosis is of primary significance in the absorption and transportation of particulate substances seems well established, but opinions are still divided as to the relative significance of the blood and lymph vascular systems in the absorption of crystalloid and colloidal substances. It seems well at present to consider that both systems play a part in the absorption of both crystalloids and colloids. Probably in the case of most simple molecular crystalloids the main route of absorption is hemic, while with simple colloids it is along lymphatic channels. Absorption and resorption of liquids from the lower respiratory tract, the lungs and the pleura follow the main principles of absorption in other parts of the human economy, but the anatomic structure and physiologic function lend to these tissues differences that are still to be determined. The rapidity of absorption of crystalloids from the lungs and pleura exceeds that from the peritoneum and subcutaneous tissues. Absorption of crystalloids is more rapid from the lungs than from the pleura, and it is possible that absorption from the lungs in part accounts for the rapidity of absorption from the pleura. The rapidity of absorption of liquids from the lungs is probably to a great extent accounted for by the vascularity and large total surface of the terminal respiratory divisions—the alveoli. The absorption of crystalloids by the pleura is not influenced by artificial pneumothorax instituted shortly before and resulting in a decided collapse of the lungs. Acute inflammatory conditions affecting the pleura, produced by chemical means (hydrochloric acid and mercurochrome), retard the absorption of crystalloids from the pleura. Acute inflammatory conditions affecting the pulmonary parenchyma, produced by gassing with bromine, retard the absorption of crystalloids from the lung after intratracheal injection. In the application of procedures to the lungs and pleura for diagnostic and therapeutic purposes, these facts must be borne in mind.

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Inquiries.* Any inquiry with reference to pharmaceuticals, surgical instruments or any other manufactured product which you may need in home, office, sanitarium or hospital, will be promptly answered. Address all inquiries to Wisconsin Medical Journal, or write direct to Cooperative Medical Advertising Bureau, 535 North Dearborn Street, Chicago, Illinois. The Bureau is equipped with catalogues and price lists and can supply information by return mail.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

POST GRADUATE STUDY

ABOUT 1904 the American Medical Association started a re-organization of its members and a survey of the medical schools. At that time there were some hundred and sixty-five medical schools, not more than you could count on your fingers that would be recognized in any European country, or for that matter in South America. Now we have some eighty schools, nearly all representative of the best traditions of medicine in requirements and teaching. One would think that the medical profession would be above criticism with such a showing. But often "Knowledge comes but Wisdom lingers."

Too many graduates of medicine forget when they graduate that they have only learned the a, b, c's of a profession which is ever and very rapidly progressing. And perhaps, too, many deserve the designation of Donne when he said "Who are a little wise, the best fools be."

In a profession like ours, only constant application and study after graduation can keep a man abreast of the science of medicine. Post graduate study is absolutely necessary. This can be attained in various ways. It is indispensable that the graduate keep himself informed by taking the best medical journals and READING them. But even this is not enough. It was Osler, I think, who said that no matter how much we read, unless we frequently visit clinics, our reading is apt to be in vain. The recent graduate should not only take and read journals, but he should also have and read the best text books. For the graduate of more mature years, it is not so necessary to read the journals from cover to cover (and God forbid he should try), but he should skim through them and find the things that are new and worth while. It is not enough for the recent graduate—and by recent I mean the first ten or fifteen years after graduation, to spend a day or two or even a week at this or that clinic, however famous it may be. But he should endeavor to take at least six months of serious study at some school some time before he has been graduated five years, and thereafter at least once a year try to have from two to four weeks to devote to clinical work away from home. From personal experience, I can say that the best way to increase one's income is to turn the key in the office door as often as possible and take post graduate work. For the people soon know why you are away.

The County Medical Society sometimes is, and always should be a means for post graduate work. It would be a great deal more efficient if the Society made a greater endeavor to have its own members present worth while papers—for education, after all, is a drawing out, not a pouring in. And however learned the outside essayists may be, the value accruing is limited compared with the study and investigation the members of the Society gain by papers presented by themselves.

In Wisconsin the opportunity for post graduate work is at our door. The University Board of Regents have generously given a grant for the purpose of post graduate study, brought to our very door. We have not been availing ourselves of it as we should. Then the Medical School and State Memorial Hospital invite us to avail ourselves of their facilities and teachers to an unlimited degree. We are not accepting the opportunity as we should; which reminds me of a cartoon in PUCK when Bryan was running for President. The Democratic donkey was being led to the trough by Bryan and below it was the legend: "You can lead him to water but you can't make him drink."

If anyone thinks the medical profession is all it should be, let him read an article in the August number of The Annals of Surgery, by Charles L. Gibson of New York, to see the pitiable showing the profession makes in the early diagnosis of cancer.

The *real* doctor stands head and shoulders above any other man or calling. "We expect him to exemplify, like the surgeon of whom Henly wrote:

'Faultless patience and unyielding will,
Beautiful gentleness, and splendid skill,—'

caring always for life as a thing most precious; quick—and now happily well able—to spare the sufferer one unnecessary pang; the restorer of health, a strong, sure helper in the more supreme moments. Such is the doctor, the family doctor, who is more to the public at large than the most learned and most wise, who dwell in those two long, unlovely parallel streets of London, where

the waters of healing are laid on at the main."—(Quoted from President's Address, Br. Med. Ass., 94th Annual Meeting, 1926, by R. G. Hogarth, C.B.E., F.R.C.S.) Do you doctor readers measure up to this standard?—*E. E.*

CANCER: CAUSES AND CURES

ATTENTION has been attracted to the subject of Cancer by many recent occurrences; notably by the very important research of Gye and Barnard of London which, through ill advised newspaper publicity, became, for a short time, the topic of the day.

The over-enthusiasm, optimism and unwarranted conclusions of the lay press were in marked contrast with the conservative and rational statement of the Committee of the Royal College of Surgeons in awarding the "Walker Prize" to Dr. Wm. Edward Gye, which statement might very well serve as a model to the daily papers.

"These experiments, pursued with great patience and acumen over a long period and still in progress, suggest new and hopeful lines of attack upon the problem of the cause of malignant disease. Though it can not yet be said that they have fonnd practical application, they have already given to cancer research such a great stimulus and such a new direction as to justify the committee in recommending Dr. Gye for the Walker Prize."

But as long as the newspapers are in search of sensational possibilities rather than serious facts, the public will continue to be misinformed and disappointed and the profession misunderstood and blamed for reporter's lack of judgment.

These observations of Gye and Barnard call for confirmation by independent observers which, to date, have not materialized. James B. Murphy of the Rockefeller Insitute (J.A.M.A. Apr. 24, 1926) presents experiments and evidence that challenge reconsideration of the conclusion of the English gentlemen.

Harkins, Schamberg and Kolmer (Jour. of Cancer Research, Apr., 1926) likewise question Gye's interpretation of his findings. In the interest of public health it is indeed unfortunate that newspaper publicity regarding startling new medical discoveries can not await confirmation.

Further interest in cancer and its cause was aroused by a report to the last German Surgical Congress by Dr. Kurtzahn of Konigsberg, who made an unsuccessful transplantation of tumor tissue in his own body. It is of more than passing interest to note that Nicholas Senn (one time president of the Wisconsin Medical Society) about 1896 performed this same spectacular experiment with a similar result.

Additional study of heredity in cancer has recently been made possible by a donation of $100,000 by E. F. Holmes to the University of Chicago.

Search for a test for or clue to cancer in the blood, or the secretions of the body continues to attract the medical mind. Many have been found wanting but newer serologic tests such as those of Botelho and Roffo, are calling for recognition. The attention, study and effort being given to this phase of the question is stupendous. The serious workers must be given every opportunity, encouragement and constructive criticism if these efforts are to continue. They must, of necessity, in due time, be followed by a solution to the problem.

Coincident with this interest in the cause and nature of the disease is a renewed effort at amelioration and cure. Organized efforts to smooth the rough path of the cancer patient are becoming more frequent. "The Servants of Relief for Incurable Cancer" under Mother M. Alphonsa Lathrop at Hawthron, N. Y., was given deserved recognition by the New York Rotary Club. The establishment of state or district institutions for the study and cure or relief of cancer would seem just as logical as such institutions are for the mentally diseased, the tuberculous, or other classes of unfortunates. They will probably soon follow.

Newer methods of attempted cure are common. Colloid metals are again emphasized, and the efforts of Blair Bell of Liverpool with a special preparation of lead calls for commendation both for the attempt and for the careful manner in which his results are recorded. Restraint, again noted in marked contrast to the circus advertising methods and ridiculous claims of commercial concerns and individuals that are aiming to take the place made vacant by the late Abrams.

The transitory success of these various cold blooded "quack schemes" for capitalizing human suffering would seem to show that as long as honest medical gentlemen continue to tell hopeless cancer patients the truth (and the truth remains as it is), while dishonest, pseudo-medical individuals continue to promise to cure such cases—just so long will the drowning man grasp at a straw and the "quack," despite legislative attempts at his removal will continue to be with us.—*F. G. C.*

THE PRESIDENT'S PAGE

Joseph F. Saint

EIGHTY-FIFTH ANNIVERSARY MEETING

The annual meeting of the Wisconsin State Medical Society to be held at Madison September 15-17, is near at hand. Since the first of the year, the officers of the society have been busily engaged in making plans for this meeting. A Committee on General Arrangements and a Program Committee were appointed early in the year, and these committees have been hard at work upon arrangements for the scientific program and for the entertainment features.

A general plan for the scientific program was outlined to include subjects of interest to the general practitioner. Pediatrics, obstetrics, cardiorenal diseases, fractures, physical therapy, periodic health examinations and other equally important subjects will be discussed by men who are eminent in their respective lines, with clinics and demonstrations in most of the subjects to be presented.

The General Arrangements Committee has worked out an elaborate plan of entertainment, including a tournament for the golfers, entertainment for the ladies, an outdoor afternoon reception, and evening programs which will afford ample entertainment for the doctors outside the hours of the scientific sessions.

The Capital City which presents many attractions will be at its best at this time of the year and our hosts, the members of the Dane County Medical Society, are making a special effort to secure a large attendance.

No physician in the state can afford to miss this meeting. If you cannot possibly come down for the entire session, pick out the day or days that interest you most and drive down. Once you are there, you will decide to stay through the session.

Many state trunk highways from all parts of the state lead to Madison and the trip by auto will be most pleasant and enjoyable from any and every direction.

There are several matters of great importance to come before the House of Delegates. The House is the legislative body of the Society and it is important that each component county society be represented at its sessions. Be sure that your delegate is going to be there and that he is prepared to give your local society a report of the Madison session at your next county society meeting.

THE EXECUTIVE SECRETARYSHIP

Four years ago, the House of Delegates of our State Medical Society decided to employ a full-time Executive Secretary. Two other states had previously taken this action and the success and satisfaction which they had with this arrangement encouraged our Society to adopt this plan. Since that time, eight or nine other states have adopted the plan in one form or another and several other states have similar plans under consideration.

Prior to that time a physician elected by the House had served the Society with little or no compensation, keeping its records and carrying on the large amount of necessary correspondence, often without clerical help and at great personal sacrifice of time and energy. The Society owes a lasting debt of gratitude to those physicians who served the Society long and faithfully in this capacity. Their work formed the foundation upon which our present organization is being built.

The present Executive Secretary has served the Society continuously since the adoption of this plan. His work and the progress of our Society during this time has attracted attention outside the state. National organizations have tried to secure his services and our Council has felt it proper to increase his salary on two occasions.

Our Society finances are now being run on the budget plan, the amount of money to be used for the various activities being appropriated by the House of Delegates and expended under the supervision of the Council.

A few of the many important things accomplished by the Society under the full-time secretaryship may be briefly mentioned:

1. The Wisconsin Medical Journal has been improved, enlarged and made more nearly self-sustaining.
2. The county societies have been visited and their meetings fostered by assisting them in getting program material.
3. District societies have been developed throughout the state during the last year.
4. Hygeia is being presented by the Society to 300 laymen.
5. An annual "lay" issue of the Wisconsin Medical Journal has been issued and sent to approximately 9,000 persons in the state.
6. A weekly service of carefully prepared health articles for every daily newspaper and 140 weekly papers in the state is provided.
7. A manual on "The Early Diagnosis of Cancer" and one on "Periodic Examinations of Apparently Healthy Persons" have been sent to every member of the Society.

These are only a few of the outstanding activities carried out by the Society under the guidance of our full-time Secretary.

We now have a paid membership of approximately 2,000 at $9.00 each, making $18,000.00 available each year for carrying on the work of the Society and publishing the Journal. Some state societies with a larger membership raise a greater total amount on smaller dues. Several societies with a membership comparable to ours pay higher dues—Minnesota, for instance, has an annual membership fee of $15.00. We need a slightly higher annual budget to carry on the work of the Society with reasonable certainty. The addition of $1.00 to our present membership fee, making the dues $10.00 without medical defense and $12.00 with it, would place the Society in a position to carry on the work in hand with more comfort and greater efficiency than on our present budget. This proposition will probably be made in the House of Delegates at the next Annual Session at Madison and I believe it will meet the approval of the delegates and of the membership at large.

Surely, no one who has taken the time to familiarize himself with the work of the Society and of its Executive Secretary will wish to limit or hamper in any way this work, much less to recede in any degree from the present high standard of our Society's activities.

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La Fayette	W. W. Peck, Darlington	S. A. J. Ennis, Shullsburg.
Langlade	E. G. Bloor, Antigo	J. C. Wright, Antigo.
Lincoln	E. K. Morris, Merrill	W. H. Bayer, Merrill.
Manitowoc	C. L. R. MacCollum, Manitowoc	L. J. Moriarty, Two Rivers.
Marathon	E. M. Macauly, Wausau	J. M. Freeman, Wausau.
Marinette-Florence	T. J. Redelings, Marinette	M. D. Bird, Marinette.
Milwaukee	S. J. Seeger, Milwaukee	E. L. Tharinger, Milwaukee.
Monroe	H. B. Johnson, Tomah	H. H. Williams, Sparta.
Oconto	C. W. Stoelting, Oconto	R. S. Elliott, Gillett.
Oneida-Forest-Vilas	C. D. Packard, Rhinelander	I. E. Schiek, Rhinelander.
Outagamie	C. Reineck, Appleton	E. L. Bolton, Appleton.
Pierce	G. M. Dill, Prescott	Rolla Cairns, River Falls.
Portage	G. H. Lawrence, Stevens Point	F. R. Krembs, Stevens Point.
Price-Taylor	L. S. Dietrich, Medford	E. B. Elvis, Medford.
Racine	H. B. Keland, Racine	Susan Jones, Racine.
Richland	H. C. McCarthy, Richland Center	G. Benson, Richland Center.
Rock	E. B. Brown, Beloit	G. K. Wooll, Janesville.
Rusk	L. M. Lundmark, Ladysmith	H. C. Johnson, Bruce.
Sauk	H. J. Irwin, Baraboo	Roger Cahoon, Baraboo.
Shawano	A. J. Gates, Tigerton	C. E. Stubenvoll, Shawano.
Sheboygan	A. J. Knauf, Sheboygan	Howard Curl, Sheboygan.
St. Croix	F. S. Wade, New Richmond	O. H. Epley, New Richmond.
Trempealeau-Jackson-Buffalo	H. A. Jegi, Galesville	R. L. MacCornack, Whitehall.
Vernon	H. J. Suttle, Viroqua	Wm. H. Remer, Chaseburg.
Walworth	A. M. Leland, Whitewater	Carroll Rice, Lake Geneva.
Washington-Ozaukee	C. A. Balkwill, Grafton	A. H. Heidner, West Bend.
Waukesha	Thomas Miller, Oconomowoc	S. B. Ackley, Oconomowoc.
Waupaca	T. E. Loope, Iola	A. M. Christofferson, Waupaca.
Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

COMING MEETINGS OF INTEREST TO MEMBERS

Name	Secretary	Date
State Medical Society of Wisconsin	Mr. J. G. Crownhart, Milwaukee	Madison, Sept. 14-18
Basic Science Board	M. F. Guyer, Univ. of Wis	Madison, Sept. 17-18
Medical Examiners	R. E. Flynn, La Crosse	Milwaukee, October; Madison, Jan. 11, 1927.
International Union Against Tuberculosis		Washington, Sept. 30 to Oct. 2.
National Tuberculosis Association		Washington, Oct. 4-7.
Wisconsin Anti-Tuberculosis Association Annual Meeting		Milwaukee, Oct. 22-23.

COUNCILOR DISTRICT MEETINGS, 1926

First (Dodge, Jefferson, Waukesha)	1927.
Second, (Kenosha, Racine, Walworth)	Racine
Third (Dane, Columbia, Green, Rock, Sauk)	1927.
Fourth (Crawford, Grant, Iowa, LaFayette, Richland)	Lancaster, August 31.
Fifth (Calumet, Manitowoc, Sheboygan, Washington-Ozaukee)	1927.
Sixth (Brown-Kewaunee, Door, Outagamie, Fond du Lac, Winnebago)	1927
Seventh (Juneau, La Crosse, Monroe, Vernon, Trempealeau-Jackson-Buffalo)	La Crosse, 1927
Eighth (Marinette-Florence, Oconto, Shawano)	1927.
Ninth (Clark, Green Lake-Waushara-Adams, Lincoln, Marathon, Portage, Waupaca, Wood)	Wausau, Sept. 30.
Tenth (Eau Claire and Associated, Chippewa, Pierce, Rusk, St. Croix, Barron-Polk-Washburn-Sawyer-Burnett)	Eau Claire, Fall
Eleventh (Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas, Price-Taylor)	
Twelfth (Milwaukee)	Fall

BARRON-POLK-WASHBURN-SAWYER-BURNETT

The members of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society met at the Elks Club, Rice Lake, on August 24th. Dr. Joseph F. Smith, president of the State Society, addressed the audience on "Periodic Health Examinations for Apparently Healthy Persons". Following the discussion a 5:30 banquet was enjoyed by the physicians and their wives.—D. L. D.

LA FAYETTE

The members of the La Fayette County Medical Society met at Argyle on August 3rd. New officers were elected for the ensuing year which resulted in the following: President, Dr. W. W. Peck, Darlington; Secretary-Treasurer, Dr. S. A. J. Ennis, Shullsburg; Delegate, Dr. C. F. Lehnkering, Darlington, and Alternate, Dr. W. B. Williams of Argyle.—W. W. P.

TREMPEALEAU-JACKSON-BUFFALO

The June meeting of the Trempealeau-Jackson-Buffalo County Medical Society was held at Whitehall on June 24th. Dr. F. A. Willius of the Mayo Clinic, Rochester, Minn., gave a splendid talk on "Newer Methods in the Treatment of Heart Diseases."

On July 15th the society enjoyed a boat ride up the Mississippi River on Dr. W. J. Mayo's yacht "North Star." The trip included a visit to Lake Pepin and Red Wing, Minn. The guests included Dr. Joseph F. Smith, Wausau, president of the State Society, Mr. J. G. Crownhart, executive secretary, Dr. and Mrs. H. Z. Giffen, Mayo Clinic, with the members of the society and their friends. The day was beautiful and everyone enjoyed the trip.—R. L. MacC.

WALWORTH

The Walworth County Medical Society held a banquet and meeting at the Elkhorn hotel, Elkhorn, on Friday, July 30th. Dr. L. M. Warfield, Milwaukee, spoke on the subject of "The Real Significance of Cardiac Murmurs." Mr. J. G. Crownhart, secretary of the State Society, also addressed the members, discussing "Future Fields of Work for the Society".—C. W. R.

WINNEBAGO

About thirty physicians attended the meeting of the Winnebago County Medical Society at Omro on July 23rd. A fish dinner served at seven o'clock preceded the business session. Dr. F. Gregory Connell, Oshkosh, read a paper on "Periodical Health Examinations," and Dr. C. J. Combs, also of Oshkosh, presented the subject of "Correct Diagnosis of Abdominal Conditions." A general discussion followed the presentation of these papers.—R. H. B.

INTERURBAN ACADEMY OF MEDICINE

Papers dealing with the early medical history of Douglas County, Wisconsin, and St. Louis County, Minnesota, will constitute the next program of the Inter-

urban Academy of Medicine which has a membership of 100 physicians in Superior and Duluth. Meetings are held bi-monthly, alternating the meeting place between Superior and Duluth.

At the January meeting this year Dr. Clement showed motion pictures of gastric motor phenomena and gave a very interesting talk with the pictures. These pictures were very enthusiastically received by the society. Dr. A. Beard of Minneapolis read a paper on "Diabetes and Diabetic Gangrene" at the March meeting. At the May meeting Dr. A. M. Collins presented a paper on "Surgery of Intestines." This was illustrated by lantern slides. At the same meeting Dr. B. F. Davis of Duluth presented a paper on "Pathology of Pancreatitis."

Dr. G. J. Hathaway, Superior, is secretary of the Society.

MILWAUKEE PEDIATRIC

The regular meeting of the Milwaukee Pediatric Society was held at the Milwaukee Children's Hospital on Wednesday, August 11th. Dr. Julius Hess presented a paper on "Infant Feeding," and Dr. A. B. Schwartz reported on his recent visit to European clinics.

NEWS ITEMS AND PERSONALS

Dr. J. W. Christensen, formerly with the Wisconsin Veterans' Home at Waupaca, is now established at The National Home of Togus, Maine.

Dr. R. C. Meyer, Plymouth, was elected medical director of Rocky Knoll, the new Sheboygan county tuberculosis sanatorium, situated between Plymouth and Elkhart Lake, and which was opened to patients on Monday, August 2nd. Dr. Meyer will serve the sanatorium on a part-time basis, retaining his private practice, but will, however, visit Rocky Knoll every day. Dr. Howard E. Curl, Sheboygan, has been appointed to take charge of the x-ray work of the institution.

The sanatorium can accommodate eighty patients and is thoroughly modern and up-to-date in every respect. Miss Levina Dietrichson, formerly of the Jefferson county sanatorium, is superintendent of Rocky Knoll.

Wisconsin's Association for the Disabled announced recently that the county organization would be perfected early in September. Congressional district organizations have already been perfected and considerable work has been done to help disabled and crippled children throughout the state.

An orthopedic clinic was conducted on August 12th under the auspices of the Langlade chapter of the association. Fifty-eight of the Langlade county crippled were examined and given advice for proper treatment by Dr. F. J. Gaenslen, Milwaukee, at the Junior high school building, Antigo.

Dr. A. V. de Neveu, Rhinelander, deputy state health officer, in charge of twelve northern Wisconsin counties, has accepted the position of medical superintendent at the Emergency Hospital, Milwaukee. Dr. deNeveu will begin his new dusties about the first of September.

Dr. B. F. Royer, New York City, medical director of the American Association for Prevention of Blindness, and Dr. Frank Rector, Chicago, editor of "Nation's Health," were conducted on a tour of the Madison health department recently by Dr. A. M. Carr, health officer. Dr. Rector also visited Milwaukee and inspected the health work of the city. Until a year ago, Dr. Rector was secretary of the American Association of Industrial Physicians and Surgeons.

Dr. W. B. Thewalt, Milwaukee, has resumed his practice in the city of Berlin after an absence of about a year.

Dr. E. L. Gilman, Mellen, was appointed by Governor John J. Blaine to serve on a committee, with Attorney Bernard of Washburn and Judge Flandrena of Hurley, in the dispensing of the state relief funds to the victims of the recent tornado in the vicinity of Ashland, Cozy Valley and Upson.

Dr. Anna B. Corr, Juneau, is confined to her home with a fractured hip sustained recently while crossing the street. A wet pavement caused the fall. Dr. Corr and her husband just returned from a several months' sojourn in California.

Dr. W. P. Zmyslony, formerly of Oshkosh, has now established his practice at Milwaukee.

The Davis, Neff and Bower Clinic of Madison, have added a new physician to their staff in Dr. V. B. Hyslop, who for the past two years has been a resident surgeon at the Wisconsin General Hospital. Dr. Hyslop's work with the hospital was in the department of the eye, ear, nose, throat, and plastic surgery.

Dr. and Mrs. H. A. Robinson, Kenosha, have returned to their home after an extensive and interesting tour of Europe which they took in connection with the Inter-State Post Graduate Medical Assembly of America. The Robinsons left Kenosha on April 22nd, sailing from New York with 98 physicians and their wives. Approximately 360 clinics and demonstrations were offered in the European hospitals visited by the American physicians.

Dr. Mabel G. Masten of Darlington has been appointed resident physician in Neuropsychiatry at the Wisconsin General Hospital for the coming year. Dr. Masten is a Graduate of the University of Chicago and of Rush Medical College, and has recently completed her internship at Wisconsin General.

Dr. Henry B. Perlman, Madison, who has been on the staff of St. Mary's hospital there since April, has become associated with Dr. F. G. Tindall of Belleville. Dr. Perlman is a graduate of the University of Wisconsin and Rush Medical College of Chicago. He was formerly connected with the Los Angeles General Hospital.

Dr. Frederick N. Sauer, Milwaukee, was recently released from the federal prison at Fort Leavenworth under parole. Dr. Sauer served six months of an eighteen months' sentence for violation of the Volstead act. He was tried in federal court and fined $2,000 in addition to the prison sentence.

Dr. Roy E. Bushong, Boston, has assumed his duties as head of the newly formed Mental Hygiene clinic of the Milwaukee county dispensary. Dr. Bushong was appointed by the County Board Committee on Institutions and was chosen from a group of twenty men who were recommended. He was graduated from the Ohio State University College of Medicine at Columbus in 1911.

Dr. Alexander Schlapik, formerly of Milwaukee, has opened offices in the Schwartz Building, Kenosha. Dr. Schlapik has been engaged in the general practice of medicine for thirteen years and for the past four years has specialized in genito-urinary diseases at Milwaukee. He will continue to confine his practice to this specialty.

Physicians and executives of several tuberculosis sanatoria in Michigan, on their way to attend the mid-year sanatorium conference at Powers, Michigan, visited the Muirdale Sanatorium at Wauwatosa. The party was headed by the executive secretary of the Michigan Tuberculosis Association.

After having served two terms as health officer at Clintonville, Dr. C. M. Griswold has moved to Oostburg where he will continue his private practice.

Dr. and Mrs. R. H. Jackson of Madison have just returned from their trip abroad. During the past two months they have been motoring through England, France and Germany. Dr. Jackson spent some time at the various medical centers observing the work of continental surgeons.

Dr. Hoyt E. Dearholt, Milwaukee, was in attendance at the Michigan Sanatorium Conference held at Powers, Michigan, on August 20th.

Dr. M. D. Bird of Marinette spoke on the subject of "Inguinal Hernia" before the annual meeting of the Upper Peninsula of Michigan Medical Society held at Menominee, Michigan, on August 18th, 19th and 20th.

Dr. Karl Kassowitz, Wauwatosa, has returned to Muirdale Sanatorium after an extended trip to Europe. Dr. Kassowitz visited sanatoria and hospitals in Switzerland, Austria, and other countries, observing new methods of tuberculosis treatment.

A free clinic for the diagnosis and treatment of cancer in its early stages, was recommended to the common council by Dr. John P. Koehler, health commissioner of the city of Milwaukee, who at the same time had a report showing forty-five deaths in Milwaukee during July as a result of this malady.

"The Milwaukee County Medical Society could best organize and operate such a dispensary, but in the event that it is unable to do this the city should not fail to do it," said Dr. Koehler.

Dr. Arthur J. Connell, son of Dr. and Mrs. D. R. Connell, Beloit, has begun the practice of medicine in Rockford. He was graduated from Beloit high school and later from Beloit college in 1919 after making a reputation as an athlete. He finished his pre-medic course at Wisconsin university in 1921 and was graduated from Rush Medical college, Chicago, in 1923. He was at Cook county hospital for 18 months and for another year and a half was at Augustana hospital. For the last year he has been an assistant to Dr. Percy.

MARRIAGES

Dr. Paul C. Gatterdam, La Crosse, and Miss Ruth Esch, also of La Crosse, were married in that city on August 14th.

Dr. Clarence A. Richards, Rhinelander, and Miss Alberta Titus, Fond du Lac, were united in marriage on August 20th.

DEATHS

Dr. C. J. Habhegger, Watertown, died at St. Mary's hospital on the morning of August 7th. Dr. Habhegger was born in Watertown on April 24, 1872, graduated from the local high school in 1891 and then entered the University of Wisconsin where he pursued a course in pharmacy. He was for two years pharmacist at the Northern Hospital for the Insane, then entered Rush Medical College of Chicago from which he graduated in 1897. The doctor served his internship at Cook County Hospital, Chicago.

Dr. Habhegger was a member of the Jefferson County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his mother, his wife and two daughters.

SOCIETY RECORDS

NEW MEMBERS

Medlar, E. M., University of Wisconsin, Madison.
Hadden, M. R., Walworth.
Peterson, L. W., Sun Prairie.
Prentiss, Pearce, South Wayne.
Thompson, Geo. E., Gilman.
Williams, W. B., Argyle.
O'Malley, T. S., 221 Grand Ave., Milwaukee.

CHANGES IN ADDRESS

Zmyslony, W. P., Oshkosh, to 419 Becher St., Milwaukee.

Reese, H. H., Mendota, to Madison.

Paul, Olin, Niagara, to Randolph.

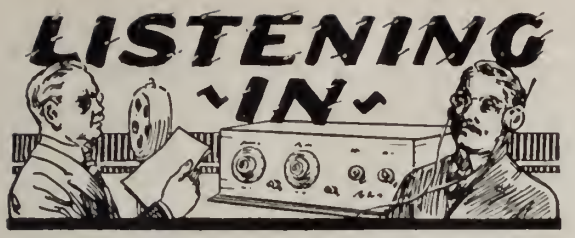
Christensen, J. W., Waupaca, to Togus, Me.

Jamieson, R. D., La Crosse, to 3313 Washington Ave., Racine.

Schlapik, A., Milwaukee, to 201 Schwartz Bldg., Kenosha.

Comee, William C., Green Bay, to Glenwood Springs, Colo.

Echternacht, A., Janesville, to Methodist Hospital, Indianapolis, Ind.



ENFORCEMENT CAMPAIGN OPENED

The attention of members is called to the announcement of the State Board of Medical Examiners in this issue. It will be noted that the board is requesting the cooperation of every member to establish whether there are any unlicensed physicians or osteopaths now in the state. Following a successful completion of this first part of their program, the board will then extend its investigation to cover types of violations included in the entire chapter "Treating the Sick."

BUSINESS METHODS

This issue contains a paper by Mr. Theodore Wiprud of Frederic in which he discusses the business relationships of the physician. It is deserving of the attention of our readers for while it is a subject that is occasionally over-emphasized, it is far more often neglected.

INTERESTING QUESTION RAISED

At the request of the Narcotic Division of the federal government the secretary late in August, wired for an interpretation of the exemption clause under those sections covering the licensing of physicians. Under the exemptions, commissioned officers of the army and navy need not be licensed. The Narcotic Division inquired whether they should be licensed if they attempted to be in private practice as well as their official work. The question was referred to Attorney General Herman L. Ekern through the office of the State Board of Medical Examiners. In response the Narcotic Division was informed that while a commissioned officer might be called in consultation, private practice without a license is not permissible.

OPEN TO MEMBERSHIP

The secretary takes this opportunity to stress the fact that all meetings of the House of Delegates are, by constitution, open to the entire membership. While the privilege of the floor is ordinarily extended only to delegates, this has never been interpreted to bar a member from presenting to the House any question of general importance.

A HUSBAND'S ROOM

The Chicago Lying-In Hospital has a "Husband's Room" for anxious expectant fathers, according to "Better Times." Ash trays, matches, comfortable chairs and appropriate pictures are provided as a human touch to dull the edge of anxiety.

One is almost prompted to attempt a humorous wheeze on that news item; but a recollection of anxious-faced, restless relatives, sitting in straight-backed chairs in a sepulchral waiting room, without so much as an old last year's "Saturday Evening Post" for entertainment, curbs that impulse.

TWENTY YEARS AGO

The Wisconsin Medical Journal editorially commended Samuel Hopkins Adams for his exposure of fraud and quackery in Collier's Weekly. The last of that series "The Great American Fraud" was just running.

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In the report of the annual meeting, Dr. W. T. Sarles of Sparta and Dr. B. M. Caples of Waukesha were elected as delegates to the American Medical Association.

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A resolution was received from the Eau Claire County Medical Society in which that society requested that at least one member of the State Board of Control should be a physician.

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Dr. E. L. Boothby of Hammond presented a resolution from the St. Croix County Medical Society charging inefficiency in the then present medical practice act, asking for the cooperation of all county societies in securing "proper legislation."

Extensive improvements are being made at several of the state charitable and penal institutions which will greatly increase both the capacity and the facilities, according to John J. Hannan, president of the board. At three of the institutions a new plan for receiving patients will soon be inaugurated. At the Northern hospital, at the Southern colony at Union Grove and at the Wales tuberculosis sanatorium receiving buildings are to be erected where patients will be given treatment and studies for a month or more before being assigned. It is believed that this intensive treatment of the insane at the Northern hospital will result in many patients being improved and returned to private life. When the last legislature was in session, Dr. W. F. Lorenz, then a member of the board, advocated the receiving plan for the treatment of early cases.

Plans have been drawn for the beginning of the colony plan at the Northern colony for feeble-minded at Chippewa Falls. A dairy colony is to be established and also a farm colony. About sixty patients will be required to operate these. It is the plan of the board to make all of these state institutions self-supporting, if possible.

Plans for a receiving building at Wales are being drawn. Under this new plan all new patients to the institution will be studied here before being transferred to the other buildings for treatment. When this new building is completed the facilities will be increased to care for 83 additional patients. At the Tomahawk camp for incipient tuberculosis sufferers plans have been drawn for a new refectory building, a power house has been built and many other improvements are under way.

increase in population at practically all of the state institutions have required many improvements and additions to be made at once.

* * * *

An Illinois resident who has purchased all of the land around two lakes in Oconto county cannot bar others from the lake providing they can get on the water without trespassing on his premises. This opinion was given by Attorney General Herman L. Ekern to John B. Chase, district attorney of Oconto county. In asking the opinion, Mr. Chase declared that roads leading to both lakes have been traveled for more than 20 years and the attorney general held that these roads are public highways and that anyone can follow these roads to the lakes and make any legitimate use of them. The legal principle declared in the opinion has a wide application.

The state has stocked the two lakes with fish, according to Mr. Chase, and the present owner of the surrounding land has posted signs prohibiting fishing in the lakes. Under the ruling by Attorney General Ekern, anyone may fish on the lakes, providing there is no trespassing on private property. The attorney general's opinion holds that if there is no legal road to such lakes, land can be condemned and roads built to them so that the public has access.

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Upwards of 200,000 people visit the state capitol at Madison every year to see the beauties of the building. The dome is the greatest center of attraction for most of the visitors. Upwards of 1,000 people visit the capitol every Sunday and the number on week days during the summer months is not much less. It requires the services of two guides making 13 trips a day to take all the people through the capitol.

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On September 18th the Wisconsin Supreme Court will hear arguments on the question of the legality of the beer referendum passed at the last session for submission to the voters at the November election. S. A. Fuller, Milwaukee, has brought an action to restrain state officials from submitting the amendment on the ground that there is no legal method by which it can be done. It is also claimed the legislative proposal was illegally passed. The attorney general's office estimates the cost of submitting the question at $15. The resolution is a memorial to congress to modify the Volstead act so as to permit the sale of beer. No decision is expected from the court before October 1st.

* * * *

After a lapse of more than fifty years, the University of Wisconsin is about to re-inaugurate the dormitory system for men. With the opening of the fall semester, the new dormitory and commons for men will be used for the first time to accommodate 500 students. Nearly three-quarters of a century ago, the dormitory system for men was in full operation and the doorways of old North Hall and South Hall then used for dormitory purposes are carved with the initials of students who since have become famous in the fields of science, literature and art. Among the more famous of the dormitory students of three quarters of a century ago is John Muir, who attained international fame as a scientist and naturalist. The new buildings are much more pretentious and commodious than the dormitories when the University was first opened.

* * * *

Wisconsin has one motor vehicle for every four people, or, to be exact, for every 4.03 people. Dane county leads in relative ownership with one car for every 2.81 people, while Milwaukee county leads in total number of motor vehicles, 124,351. These figures have been worked out by F. A. Cannon, Executive Director of the Good Roads Association of Wisconsin, in an analysis of the relative motor vehicle ownership in the different counties of the state. Mr. Cannon brings out the following facts in his statement:

"Dane county leads in relative motor vehicle ownership with one car for every 2.81 people, followed closely by Green county with a relative ownership of 2.91, and Walworth with 2.96. The following counties are next in relative ownership: Waukesha, 3.02; Vilas, 3.11; Jefferson and Ozaukee, 3.3; Columbia, Dodge, Grant, Rock, Sheboygan and Washington, 3.4; Calumet and Green Lake, 3.5. As a whole, the relative ownership is higher in the distinctly rural counties. Milwaukee county has an ownership of one car to 4.37; Racine, 4.29; Kenosha, 3.96; Brown, 4.2; Winnebago, 4.10; Fond du Lac, 3.6; La Crosse, 3.86. The lowest relative ownership is in Iron County, 6.54."

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With the state supreme court holding that cities, and not the state, can decide how tall buildings can be erected in the various municipalities, there still remains to be determined just how far cities have escaped from legislative control and how much liberty each city is to have in the settling of its own affairs.

The supreme court points out that when the home rule amendment to the state constitution was adopted it provided that cities could govern themselves in matters of "local concern." The supreme court held that the limiting of the height of buildings is a matter of state-wide concern but that it is more a matter of concern to the people within a city than it is to those outside and therefore the city has complete jurisdiction on this question.

* * * *

That there is little probability that the heroic statue of Col. Hans Heg will be erected in the state capitol park this fall was announced at the state engineer's office. Authorized by the last legislature, the Heg statue was received in Madison months ago, but has not been unboxed. Officials so far have been unable to get a base of Bethel granite, like that of which the capitol was built, so the erection of the statue has been delayed.

Col. Heg took the leadership in organizing the fifteenth regiment of Wisconsin in 1861. With few exceptions, every soldier enrolled in it was a Norwegian, and most of them were from Racine county. Col. Heg fell in the battle of Chickamanga.

Madison from the Air. State of Wisconsin General Hospital in the foreground with State Capitol in the background.

Annual Meeting Program and Entertainment Most Extensive in History of Society; Unusually Large Attendance Anticipated

With requests for reservations coming into Madison from every section of the state, it appears probable that all previous records for attendance will fall by the wayside as the State Medical Society celebrates its eighty-fifth year of organized effort.

Cooperation of the Madison Association of Commerce and hotel managers has resulted in postponement of all conflicting meetings, thus opening upwards of a thousand desirable hotel rooms for the membership of the Society.

"We can provide desirable hotel accommodations for every member attending the meeting," declared Dr. W. D. Stovall, Chairman of the Committee on Arrangements, after a final survey.

"With the meeting under one roof and an unexcelled meeting hall, we are confident that the members will find no detail lacking which all go to make an enjoyable annual session. Transportation, special parking privileges, entertainment and special events for the ladies—all have been arranged, that each member may return with the feeling that this annual session was not only the most profitable but the most enjoyable."

SPECIAL ENTERTAINMENT FEATURES

Good fellowship and absolute informality are the basis for the several special entertainments that have been planned by the Dane County Medical Society in honor of their fellow members. An innovation is the Garden Party to be held in honor of President and Mrs. Joseph F. Smith on Wednesday afternoon. Transportation from the Loraine will be provided for all who have not their own automobiles and from four to six the members and their wives will have the first opportunity to get acquainted. A twenty-piece band will provide music during the afternoon and refreshments will be served.

Following the opening meeting at the First Congregational Church Wednesday evening, the members will be the guests of the Dane County members at a smoker to be held in the Main Dining Room of the Loraine Hotel. A male quartette, feature dancing acts and a comedy skit by the Haresfoot Club of the University of Wisconsin, will be included in the entertainment at the smoker.

Wives of the members will see the Four Lakes City and the University grounds on Thursday afternoon when they will be the guests of the wives of the Dane County members. The ladies will leave from the Loraine at one-thirty. Following the automobile trip they will be served tea at Mendota.

On Thursday noon the alumni of seven colleges

PICNIC POINT FROM UNIVERSITY DRIVE

ON THE MAPLE BLUFF COURSE

SUMMARY OF MEETING

Tuesday, Sept. 14th

Noon —Golfers' Luncheon, Maple Bluff.
1:00 P. M.—Golf Tournament, Maple Bluff.
4:00 P. M.—The Council, Loraine Hotel.
7:15 P. M.—House of Delegates, Loraine Hotel.

Wednesday, Sept. 15th

8:00 A. M.—Registration. Exhibits Open. Loraine Hotel.
9:00 A. M.—First Scientific Session. Loraine Hotel.
1:30 P. M.—Second Scientific Session.
4:00 P. M.—Garden Party.
7:00 P. M.—Second Session, House of Delegates.
8:15 P. M.—Opening Meeting, First Congregational Church.
9:30 P. M.—Members' Smoker, Loraine Hotel.

Thursday, Sept. 16th

7:30 A. M.—Third Session, House of Delegates, Election of Officers.
8:00 A. M.—Third Scientific Session.
Noon —Alumni and Officers' Luncheons.
1:30 P. M.—Automobile Tour for the Ladies.
2:00 P. M.—Fourth Scientific Session.
7:15 P. M.—Annual Dinner.

Friday, Sept. 17th

8:00 A. M.—Fifth Scientific Session.
12:30 P. M.—Radiological Section, Luncheon.
1:30 P. M.—Sixth Scientific Session.

will hold reunion luncheons while officers of the state and county societies will be the guests of the State Society to hear Dr. E. J. Goodwin, Secretary of the Missouri State Medical Society and Editor of the Missouri State Journal, Dr. I. G. Babcock, Cumberland, and state officers. The college group luncheons will include Northwestern, Marquette, Chicago P. and S., Rush, Pennsylvania, Washington, and Columbia P. and S.

President Glenn Frank will be the guest of honor at the Annual Dinner of the Society to be held in the Loraine Hotel on Thursday evening. The dinner, informal, will include a departure from the usual custom in that immediately following President Frank's talk, the Committee in charge has arranged for an attractive musical entertainment.

OPENING MEETING WEDNESDAY

At a meeting open to the public, President Joseph F. Smith, Wausau, will deliver the President's Address on Wednesday evening. This meeting will be held in the First Congregational Church, just across the street from the Loraine. Following organ music the meeting will be called to order at 8:15 by the Presiding Officer, Dr. Carl Henry Davis, Milwaukee, First Vice-President of the Society. Invocation will be offered by Rev. Robbin W. Barstow, after which Dr. W. D. Stovall, Chairman of the Arrangements Committee, will make announcements of succeeding meetings. The address of welcome will be given by Dr. Louis Fauerbach, President of the Dane County Medical Society. Mrs Homer Carter, Madison, will then give an organ solo after which Dr. Davis will present President Smith. Immediately following this meeting the members will attend the smoker in the Loraine.

Notable state officials have been invited to attend this opening meeting of the Society. The change from the President presenting his address at the Annual Dinner will permit of several hundred laymen hearing this message from the profession.

Those who will play golf will have their day on Tuesday, the day previous to the general sessions. This will be the second annual tournament and the members will play for the President's Cup, low gross score, and the Secretary's Cup, low net score. While these two cups are traveling trophies, permanent awards are made their winners each year. Many other prizes will be awarded for the tournament play.

UNIVERSITY ARMORY AND LAKE MENDOTA

Scientific Program Arranged to Permit Full Discussions from Members

That there will be opportunity for a full discussion of each paper presented at the Eighty-Fifth Anniversary meeting, was the announcement of the Committee on Scientific Program in presenting the semi-final arrangement of speakers.

"We feel that a frank discussion of papers is indeed most valuable," declared Dr. Hugh P. Greeley, Chairman of the Committee. "It frequently happens that through discussion, valuable points may be further emphasized and unintentionally obscure remarks made clear. We urge the members to come prepared to discuss subjects before the meeting and assure them that every possible opportunity for pertinent discussion will be granted."

While the final program will contain a few changes, now pending, and will also contain the names of those who will open discussions, the semi-final program is printed below for the information of all members and may be considered essentially correct.

WEDNESDAY—15th

9:00 A. M.

1. Use and Abuse of Physiotherapy, by Curran Pope, Louisville, Ky.
2. Some Remedies; Use and Abuse, by Bernard Fantus, Chicago.
3. Conduct of a Periodic Health Examination (Demonstration), by J. A. Capps, Chicago.

1:30 P. M.

5. Etiology and Treatment of Nephritis and Hypertension, by Joseph Miller, Chicago.
6. Prognosis in Chronic Hypertonia, by L. M. Warfield and F. D. Murphy, Milwaukee.
7. Clinical Effect of Liver Extract in Hypertension, by W. J. McDonald, St. Catherines, Canada.

THURSDAY—16th

8:00 A. M.

8. Periodic Health Examination with Special Reference to the Chest, by G. L. Bellis, Muirdale Sanatorium, Wauwatosa.
9. Allergy of the Skin, by Otto Foerster, Milwaukee.
10. Non-Specific Protein Therapy, by E. F. Mueller, University of Hamburg, Germany.
11. Hay Fever, by H. S. Bernton, Washington, D. C.
12. Asthma, by A. W. Gray, Milwaukee.
13. Clinic.

2:00 P. M.

14. Fractures, by J. L. Yates, Milwaukee.
15. Some Recent Advances in the Diagnosis and Treatment of Chronic Arthritis, by J. L. Porter, Evanston.
16. The X-Ray in Diseases and Injuries of the Skeleton, by Eugene A. Smith, Milwaukee.
17. The Use of o-Iodoxybenzoic Acid in the Treatment of Chronic Arthritis (Motion

Delegates and Alternates Who Will Compose House of Delegates for Eighty-Fifth Anniversary Meeting at Madison

SOCIETY	DELEGATES	ALTERNATES
Ashland-B-I	M. S. Hosmer, Ashland	J. M. Dodd, Ashland.
Barron-P-W-S-B	D. L. Dawson, Rice Lake	G. A. Larson, Hayward.
Brown-Kewaunee	J. R. Minahan, Green Bay	E. S. Schmidt, Green Bay.
Calumet	F. P. Knauf, Kiel	J. J. Minahan, Chilton.
Chippewa	W. C. G. Henske, Chippewa Falls	H. H. Hurd, Chippewa Falls.
Clark	F. D. Jackey, Thorp	R. R. Rath, Granton.
Columbia	A. F. Schmeling, Columbus	H. E. Gillette, Pardeeville.
Crawford	A. J. McDowell, Soldiers Grove	W. W. Coon, Gays Mills.
Dane	W. T. Lindsay, Madison	E. S. Sullivan, Madison.
	H. P. Greeley, Madison	C. G. Dwight, Madison.
Dodge	A. A. Hoyer, Beaver Dam	A. E. Bachhuber, Mayville.
Door	J. Hirschboeck, Forestville	G. R. Egeland, Sturgeon Bay.
Douglas	H. J. Orchard, Superior	T. J. O'Leary, Superior.
Eau Claire & Associated Counties	H. M. Stang, Eau Claire	B. F. Johnson, Mondovi.
	O. J. Blosmo, Menomonie	F. E. Butler, Menomonie.
Fond du Lac	D. N. Walters, Fond du Lac	A. C. Dana, Fond du Lac.
Grant	J. C. Betz, Boscobel	E. H. Spiegelberg, Boscobel.
Green	L. A. Moore, Monroe	J. F. Mauermann, Monroe.
Green Lake-W-A	H. A. Schulz, Ripon	W. E. Buckley, Red Granite.
Iowa	W. J. Pearce, Dodgeville	L. S. Graves, Mineral Point.
Jefferson	H. O. Caswell, Ft. Atkinson	J. F. Dennis, Waterloo.
Juneau	C. C. Vogel, Elroy	
Kenosha	G. F. Adams, Kenosha	F. B. Lansdowne, Kenosha.
La Crosse	W. E. Bannen, La Crosse	E. A. Smedal, La Crosse.
La Fayette	C. F. Lehnkering, Darlington	W. B. Williams, Argyle.
Langlade	J. C. Wright, Antigo	E. G. Moore, Antigo.
Lincoln	W. H. Bayer, Merrill	E. K. Morris, Merrill.
Manitowoc	E. C. Cary, Reedsville	F. E. Turgasen, Manitowoc.
Marathon	D. T. Jones, Wausau	F. C. Nichols, Wausau.
Marinette-Florence	G. R. Duer, Marinette	J. V. May, Marinette.
Milwaukee	F. B. McMahon, 120 Wisconsin St	S. M. Mollinger, 396 11th Ave.
	C. Morter, 230 Grand Ave	S. G. Higgins, Wells Bldg.
	J. W. Powers, Majestic Bldg	
	R. W. Blumenthal, 220 W. Water St	J. Dieterle, 141 Wisconsin St.
	H. Gramling, 1321 Forest Home Ave	D. E. W. Wenstrand, 733 Summit Ave.
	H. W. Powers, 770 39th St	R. Sproule, 141 Wisconsin St.
	M. F. MacRae, 120 Wisconsin St	John Beffel, 3211 Cedar St.
	W. Halsey, 410 Jefferson St	E. Peterson, Wauwatosa.
	H. McCabe, 123 Grand Ave	Bernard Krueger, Cudahy.
	W. J. Egan, 141 Wisconsin St	J. H. Carroll, 120 Wisconsin St.
	W. M. Kearns, Straus Bldg	J. Zivnuska, 582 Mitchell St.
Monroe	T. J. Sheehy, Tomah	G. C. Devine, Ontario.
Oconto	C. W. Stoelting, Oconto	E. A. Linger, Oconto.
Oneida-F-V		
Outagamie	C. E. Ryan, Appleton	
Pierce	Rolla Cairns, River Falls	Geo. M. Dill, Prescott.
Portage	H. M. Coon, Stevens Point	F. R. Krembs, Stevens Point.
Price-Taylor	L. D. Dietrich, Medford	E. B. Elvis, Medford.
Racine	Geo. W. Nott, Racine	C. O. Schaefer, Racine.
Richland	J. S. Booher, Richland Center	George Parke, Viola.
Rock	T. W. Nuzum, Janesville	P. A. Fox, Beloit.
	W. A. Munn, Janesville	W. J. Allen, Beloit.
Rusk	W. F. O'Connor, Ladysmith	H. C. Johnson, Bruce.
Sauk	G. D. Beech, Adams	L. W. Sayles, Baraboo.
Shawano	A. J. Gates, Tigerton	P. A. Teschner, Cecil.
Sheboygan	O. A. Fiedler, Sheboygan	A. J. Knauf, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	O. H. Epley, New Richmond.
Trempealeau-J-B	C. F. Peterson, Independence	H. A. Jegi, Galesville.
Vernon	W. H. Remer, Chaseburg	Wm. Trowbridge, Viroqua.
Walworth	E. J. Fucik, Williams Bay	M. V. DeWire, Sharon.
Washington-Ozaukee	H. M. Lynch, Allenton	G. E. Savage, Port Washington.
Waukesha	A. W. Rogers, Oconomowoc	U. J. Tibbitts, Waukesha.
Waupaca	F. E. Chandler, Waupaca	T. E. Loope, Iola.
Winnebago	J. W. Lockhart, Oshkosh	S. D. Greenwood, Neenah.
Wood	K. W. Doege, Marshfield	F. X. Pomainville, Wisconsin Rapids.

Picture Demonstration), by A. G. Young, Ann Arbor, Mich.

18. Backache, by H. G. Schumm, Milwaukee.
19. Recent Progress in the Treatment of Cancer of the Mouth and of the Tongue (Illustrated), by Francis B. McMahon, Milwaukee.

FRIDAY—17th

8:00 A. M.

20. Periodic Health Examination with Special Reference to the Pre-School Age Child, by J. Gurney Taylor, Milwaukee.
21. Five Errors in Obstetrics, by J. O. Polak, Brooklyn, N. Y.
22. Pediatrics, by Joseph Brennemann, Chicago.
23. Pyelitis in Children, by H. F. Helmholz, Rochester, Minn.
24. Pyelitis in Pregnancy, by W. G. Sexton, Marshfield.
25. Usefulness of the X-Ray in Obstetrics, by Gentz Perry, Kenosha.
26. Clinic on Pediatrics.

1:30 P. M.

27. Present Day Status of Fractures of the Skull, by Ernest Sachs, St. Louis.
28. Paul Clarimont, Prof. of Surgery, University of Zurich.
29. Hans C. Jacobeus, Prof. of Medicine, Royal Carolinian Institute, Stockholm.

House of Delegates to Pass Upon Important Proposals

Meeting at 7:15 Tuesday evening, September 14th, members of the 1926 House of Delegates will pass judgment on some of the most important proposals in the history of the Society. The first proposal deals with a new constitution and by-laws which provide in part:

a. Provision for the election of a President-Elect.

b. Provision for the election of a Speaker and a Vice-Speaker of the House of Delegates.

c. Reduction of terms of Councilors from six to three years, four to be elected each year.

d. Making the Council the Board of Trustees of the Society.

e. Providing for a Committee on Medical Economics.

f. Instituting a new method for the election of committeemen.

g. Providing for a standing Committee on Scientific Programs.

h. Definitely making the Council the administrative body of the Society, responsible only to the House of Delegates; all committees to be responsible to the Council.

OTHER PROPOSALS

Many other reports of committees include important proposed policies for the Society. The Committee on Health and Public Instruction recommends that the Society endorse a plan for pre-school clinics. The Committee on Cancer asks that it be made one of the standing committees of the House that it may thereby become an integral part of the Society. The report of the Delegates to the American Medical Association includes the important resolutions passed at the Dallas session which were listed in this Journal, June, 1926. The Committee on Public Policy and Legislation endorses certain reforms in the Medical Practice Act asked by the State Board of Medical Examiners and requests appropriations that the lay educational program of the Society may be continued during 1927.

The Executive Secretary will report to the House the largest membership in the history of the Society. His recommendations will include:

1. That the Society elect delegates to attend the annual meetings of the neighboring state societies of Minnesota, Iowa, Illinois and Michigan for the purpose of reporting the activities of those societies.

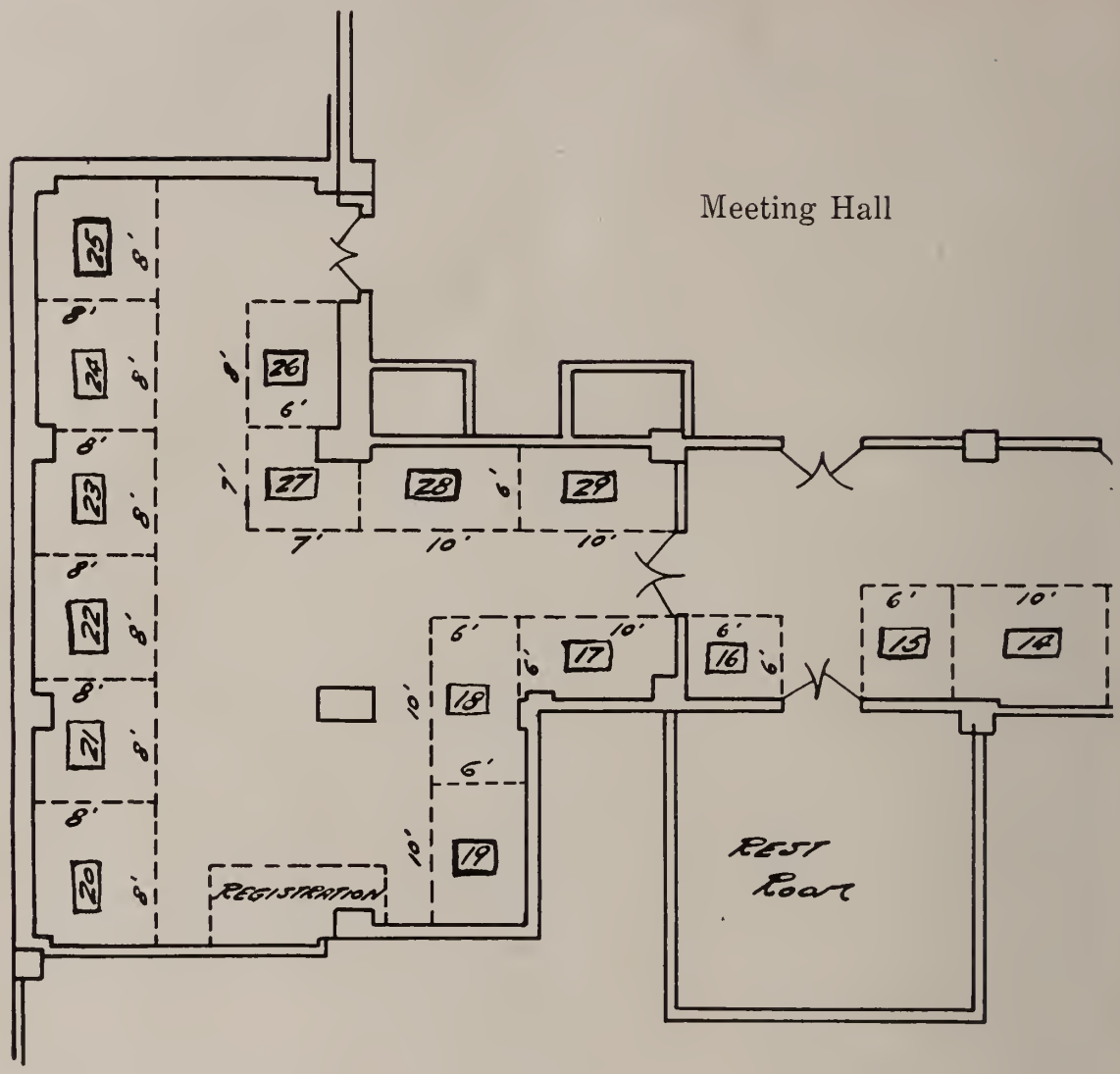
2. That the Society pay all necessary expenses for its delegates to the American Medical Association.

3. That when funds are available, the Council be authorized to approve an annual secretaries' conference to be held each year in January on the day preceding the annual meeting of the Council.

4. The appointment of a special committee to consider the subject of enlisting lay support for the public health program of the Society.

Many important resolutions will be offered from the floor on the subject of licensing hospitals, licensing of foreign physicians, nursing and other subjects of importance. These will all be referred to reference committees of the House and will be reported for action at the second meeting of the House on Wednesday evening.

Election of officers will take place at the third meeting Thursday morning.

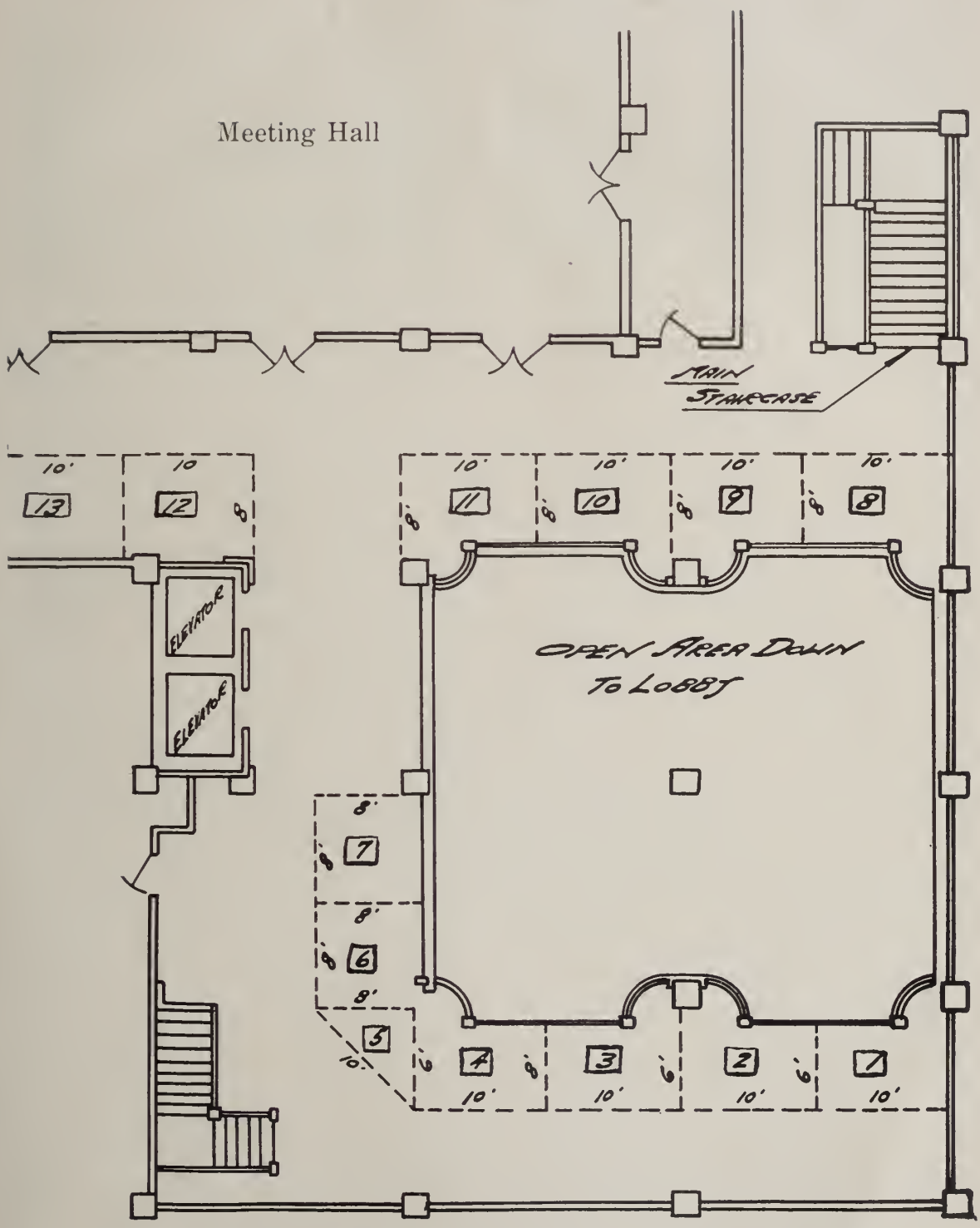


PLAN OF EXHIBITS
State Medical Society of Wisconsin
Mezzanine Floor, Loraine Hotel, Madison
September 15th, 16th and 17th, 1926

Large Technical-Scientific Exhibit to be a Feature of Meeting

A technical-scientific exhibit that occupies every foot of available space on the Mezzanine Floor of Hotel Loraine, will be an integral part of the Eighty-Fifth Anniversary Meeting of the State Society. A contract for the construction of the booths was let during August and members will find a complete exhibit when they arrive in Madison.

Following the custom of past years, the registration booth is located in the midst of the ex-



Twenty-Nine Special Booths Erected for Technical Exhibitors

hibits and all members will be asked to procure their badges before entering the hall in which the scientific sessions will be held. This requirement will be rigidly enforced that the presiding officer may know that any in the hall are entitled to the floor to enter into the discussions on the papers.

In the Rest Room, just opposite the meeting hall, both the Radiological Section of the Society and the Wisconsin Anti-Tuberculosis Association

IN THE CAPITOL

ALONG LAKE MENDOTA

will have extensive scientific exhibits. The technical exhibitors include:

4. Sharp and Smith, Chicago.
5. Spencer Lens Company, Chicago.
6. Abbott Laboratories, North Chicago.
7. Pitman-Moore, Indianapolis, Ind.
8. Victor X-Ray Corporation, Milwaukee.
9. Merrell-Soule Company, Syracuse, N. Y.
10. Merrell-Soule Company, Syracuse, N. Y.
11. Scanlan-Morris Company, Madison.
12. Mellin's Food Company, Boston, Mass.
13. Physicians' and Hospitals' Supply Company, Minneapolis.
14. W. B. Saunders Company, Philadelphia, Pa.
15. Medical Protective Company of Fort Wayne, Ind.
16. Frank S. Betz Company, Hammond, Ind.
17. H. G. Fischer Company, Milwaukee.
18. Hanovia Chemical and Manufacturing Company, Newark, N. J.
19. Huston Brothers Company, Chicago. Registration Booth.
20. Paul B. Hoeber, New York City.
21. Kremers-Urban Company, Milwaukee.
22. Victor Mueller and Company, Chicago.
23. Roemer Drug Company, Milwaukee.
24. E. R. Squibb and Sons, New York City.
25. Cameron's Surgical Speciality Company, Chicago.
26. E. H. Karrer Company, Milwaukee.
27. E. H. Karrer Company, Milwaukee.
28. Pengelly X-Ray Company, Milwaukee.
29. Horlick's Malted Milk Corporation, Racine.

Medical Examiners Ask Report on Violations: Announce Program to Curb Illegitimate Practitioners in Wisconsin

Asking the cooperation of every physician in Wisconsin, the State Board of Medical Examiners this month announces the opening of a campaign to uncover violators of the practice acts and to "institute such proceedings as will safeguard both the public and the profession at large."

Dr. Robert E. Flynn, La Crosse, secretary of the Board, in an open letter to the Journal, declares that the first step in the program will be a complete survey of the state to check with the license records the names of all practicing medicine and surgery, osteopathy or osteopathy and surgery. Secretaries of county medical societies, hospital staffs, health officers, and individual practitioners are all asked to aid in this work. The complete letter follows:

"Law Enforcement

"It has been apparent for some time that the legitimate physicians of our state have been seriously encroached upon by practitioners of all sorts and cults, whose credentials have never been reviewed by any examining board, and who are therefore practicing in violation of our present Medical Practice Act, Article 147, Ch. 13-22, inc., of our Wisconsin statutes.

"Our State Board of Medical Examiners, which heretofore has been primarily a licensing board, is at present sponsoring a movement to curb as many of these illegitimate practitioners as possible. At the present time we are making a complete survey of the state checking up with our official registry the names of every individual delving in the domain of medicine, surgery and osteopathy.

"We are asking the secretaries of each county medical society to furnish us with the names and addresses of *every* man and woman in his district, who, legitimately or otherwise, is affected by the following section of our Medical Practice Act:

Article 147, Ch. 14, 18, 19, 21, 22. (See addenda for these sections.)

"We desire especially the names of all foreign physicians, likewise those engaged as assistants, locum tenens, laboratory workers, x-ray technicians, state border-line men as well as those engaged in our state penal and charitable institutions.

"We would like their full names and addresses (initials are not sufficient) and we will return you a full report on all the qualified practitioners for your county society records, while those who are not licensed we will make a thorough investigation and institute such proceedings as will safeguard both the public and the profession at large.

"The State Board of Medical Examiners cordially invites the assistance of any medical organization, hospital staff, board of health officials, clinics or physicians, who know of any irregularities or violations of our present Medical Practice Act.

"We respectfully ask you to bring the matter of any violations to our attention and we will make every endeavor to correct these evils. If the informant desires to have his name withheld we will gladly treat same as strictly confidential, as the board is primarily interested in knowing the nature and extent of the violation, so that the proper authorities may prosecute same.

"The records of our board are open to any legitimate practitioner of medicine or osteopathy and any information you may desire at any time regarding any individual's record, or the requirements for license, whether by examination or reciprocity, you may secure same very promptly by addressing the secretary at his office, 315 State Bank Bldg., La Crosse, Wisconsin.

"Respectfully yours,
"Wisconsin State Board of Medical Examiners,
"Per Robt. E. Flynn, M.D.,
"Sec'y."

WHO VIOLATES THESE?

147.14. *Practice.* (1) No person shall practice or attempt, or hold himself out as authorized to practice medicine, surgery or osteopathy, or any other system of treating bodily or mental ailments or injuries of human beings, without a license or certificate of registration from the state board of medical examiners, except as otherwise specifically provided by statute, nor unless he shall record the same with the county clerk of the county in which he shall practice and pay a fee of fifty cents for each recording. The clerk shall enter in a book kept for that purpose the date of the license or certificate, the name of the licensee, school or practice shown, and the date of recording.

(2) No person violating subsection (1) of this section shall have the right to collect by law any compensation for professional services, or to testify in a professional capacity as a medical or osteopathic physician or practitioner of any other form or system of treating the afflicted, or as an insanity expert; except that a court in a criminal action may receive the testimony of any person as an expert and that practitioners in medicine, surgery or osteopathy licensed in other states may testify as experts in this state when such testimony is necessary to establish the rights of citizens or residents of this state in a judicial proceeding and expert testimony of licensed practitioners of this state sufficient for the purpose is not available.

(3) No person not possessing a license to practice medicine and surgery, osteopathy or osteopathy and surgery, under section 147.17 shall use or assume the title "doctor" or append to his name the words or letters "doctor," "Dr.," "specialist," "M.D.," "D.O.," or any other title, letters or designation which represents or may tend to represent him as a doctor in any branch of treating the sick.

147.18. *Itinerants.* Itinerant practitioners of medicine, surgery or osteopathy or of any form or system of treating the afflicted shall obtain an annual license in addition to the regular license or certificate of registration, and shall pay therefor two hundred fifty dollars per annum. Persons practicing medicine, surgery or osteopathy or professing or attempting to treat or heal ailments or injuries of the human body who go from place to place at regular or irregular intervals less frequently than once a week, are itinerant practitioners.

147.19. *Exceptions.* (1) Sections 147.14 to 147.18, shall not apply to commissioned surgeons of the army, navy, federal health service, or to medical or osteopathic physicians of other states or countries in actual consultation with resident licensed practitioners of this state, nor to the gratuitous prescribing and administering of family remedies or treatment rendered in an emergency.

(2) None of the provisions of this chapter or the laws of the state regulating the practice of medicine or healing shall be construed to interfere with the practice of Christian Science, or with any person who administers to or treats the sick or suffering by mental or spiritual means, nor shall any person who selects such treatment for the cure of disease

147.21 *Penalty.* Anyone violating any provision of this chapter shall be fined not less than one hundred nor more than five hundred dollars, or imprisoned not less than sixty days nor more than one year, or both.

147.22. *Malpractice.* Anyone practicing medicine, surgery, osteopathy, or any other form or system of treating the afflicted without having a license or a certificate of registration authorizing him so to do, shall be liable to the penalties and liabilities for malpractice; and ignorance on his part shall not lessen such liability for failing to perform or for negligently or unskillfully performing or attempting to perform any duty assumed, and which is ordinarily performed by authorized practitioners.

Proper Handling of Patients' Accounts*

BY THEODORE WIPRUD,
Manager, Arveson-Diamond Clinic,
Frederic

The old platitude that "there is nothing new under the sun" still holds good in this highly scientific age. Very few great discoveries have been made in the past twenty-five years that are entirely new, but certainly methods have greatly improved. This applies to medicine as it does to all other lines of endeavor.

What I have in mind to present to you this afternoon is certainly not new, and may seem so obvious to many of you that it hardly bears repeating. On the other hand you may have profited but little by this knowledge, and it may have been of little practical value to you, therefore it will stand repetition. That is the only excuse for my remarks, which will bear upon the relationship between the physician and the patient in a business way.

There is something unexplainable to most business men in the attitude of the physician towards his patients and their bills. For some reason, it seems to him, the majority of practitioners feel that it is distinctly unprofessional to mention such material things as money, until the patient's bill becomes so old that it is uncollectable or the patient decides to move away. Then the physician comes to life, employs a collection agency or an attorney, and raises "hob" in general. This may be slightly exaggerated but it comes very near being the truth.

For the past five years I have been in charge of the business of the local clinic. Coming from the most methodical of institutions, the bank, I was due for some surprises when I came in contact with the medical profession. Not that I was entirely ignorant of the physicians' attitude towards business methods, but I was not prepared for the utter disregard of them by the majority. During these years I have made many contacts with the medical profession, and it is surprising the number of physicians who are in actual financial straits due to the fact that they do not give sufficient attention to their business interests.

Admitting that the physician's first duty is to the patient, he also owes a duty to himself and family in a financial way, which is equally important and which he cannot escape. If this statement is true, and there can be no question about it, why does the patient usually consider the physician's bill the last that need be paid? Why is the butcher's and baker's bill considered much more important than the physician's? Why is it that the average physician collects a small portion of what is really coming to him?

The answer is simple and obvious; lacking the knowledge of even the fundamentals of business, the physician gives very little attention to these matters, in fact they do not interest him. This is naturally reflected upon the patient. In other words, if the physician does not consider business methods important, neither will the patient.

Conditions, however, have improved in the last few years. Group practice has become more and more common, and better business methods have been established by these groups. There are, however, among the rank and file of physicians a large number, especially in the rural districts, whose utter disregard for even the simplest business methods is appalling; so much so that their families are in a precarious position.

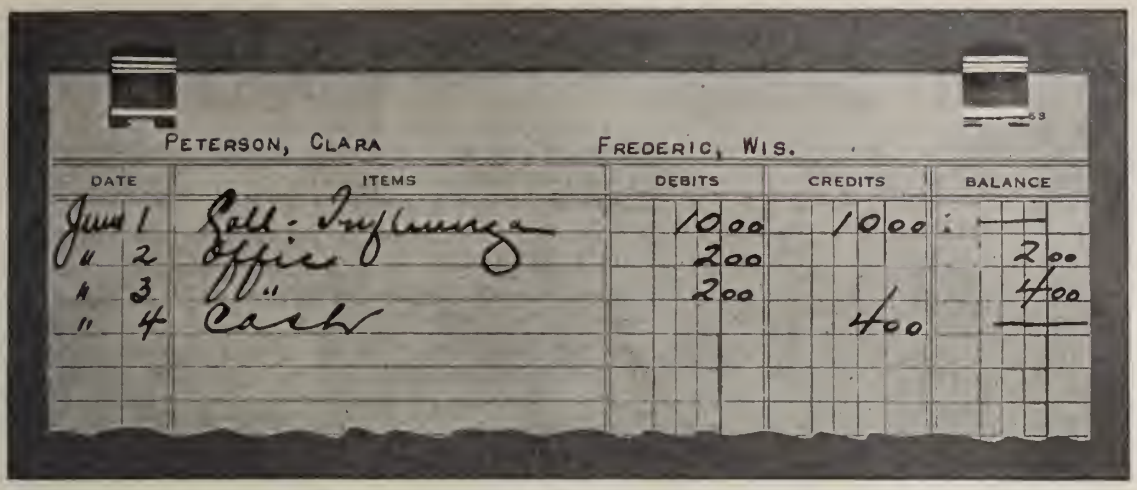
There is a remedy for this situation, which I believe will become recognized sooner or later, and that is, that some attention should be given to business methods in the curriculum of the medical college. When this time arrives the physician will not be turned out as unacquainted in these matters as he is now. While my experience in conducting a business for professional men has not been extensive, yet I have learned many things along the way which have proved of value to me, and which may prove of value to some of you, particularly the physician who is practising alone and cannot hire anyone to look after his business.

We hear a great deal these days about preventive medicine. The important thing today, as I understand it, is to avoid disease by taking certain precautions. This same rule might very well be applied to the business end of medicine, and many disagreeable situations would thereby be avoided.

FOUR SUGGESTIONS

There are a few simple rules which we adhere

*Presented before the Polk-Barron-Washburn-Sawyer-Burnett County Medical Society, Frederic, June 8, 1926.



PETERSON, CLARA FREDERIC, WIS.

DATE		ITEMS	DEBITS	CREDITS	BALANCE
June	1	Call - Influenza	10 00	10 00	—
"	2	Office	2 00		2 00
"	3	"	2 00		4 00
"	4	Cash		4 00	—

religiously to, and which we might consider for a few moments.

The first rule is: Make a fair charge for your services.

Such an injunction to a physician would seem to be entirely unnecessary. I am sure that most laymen would agree that it is.

I believe, however, that I am safe in stating that there are among the general practitioners, especially those in rural communities, a larger percentage that undercharge than overcharge. The physician, like everyone else, is entitled to a fair remuneration for his services, and he might well remember that patients are prone to regard him at his own estimate.

The second rule is: Whenever possible and deemed necessary, come to some understanding in regard to the fee, and as to method of payment.

I feel that this rule is perhaps wasted upon you, because there is no one as timid in these matters as the physician.

I contend, however, that when a patient has incurred a large bill or is about to incur one, we will say for an operation, you should discuss the matter of payment with him, unless you know just exactly where he stands financially. Further, the sooner you discuss the matter with the patient the better, because no bill ages as rapidly as the physician's. I have learned by experience that most patients will appreciate your discussing the matter of their account, if you approach the subject properly, and many times a later contention in regard to the bill is avoided.

If I had learned nothing else, this would have been sufficient to improve our financial condition and cement the tie between our patients and ourselves. After all, there is nothing that contributes so much to a better relationship as a perfect understanding.

There are several methods of settlement which work out very well. It is generally possible to work out a settlement in one of the following ways: By cash, by note, by the monthly payment plan, or by accepting some commodity that the physician can use.

Notes which we accept must be bankable, otherwise we can see no reason for accepting them, except that a judgment may be secured without court action. We explain to the patient that his note will be held by us unless we are in need of funds, and then we will discount it at his bank. Of course the notes we accept must draw the regular rate of interest, and be in proper form to be acceptable to the bank. Many patients find this a satisfactory method of settlement, and during the year we take on many notes.

The monthly payment plan we find is good except that reminders are often necessary. Where small payments each month are agreed upon, we insist that they must be regular, otherwise they will not be acceptable.

In this connection I might add that we are extremely careful not to make any agreement with a patient that we cannot fulfill, and then we can insist upon the patient doing likewise. It does not take long to acquire a reputation for square dealing and most people recognize the fact that they had better do business properly with a "square shooter".

The third rule is: Send statements promptly on the first of each month.

When I first joined the local clinic I found that statements had been sent out spasmodically, and

(Continued on page XXIV.)

THE JOURNAL BOOK SHELF

Diseases of the Skin. By Richard L. Sutton, M.D., Prof. of Diseases of the Skin, University of Kansas School of Medicine. Sixth edition, revised and enlarged, with 1,147 illustrations, and 11 colored plates. Price $12.00. C. V. Mosby Company, St. Louis, 1926.

The Thyroid Gland. The Beaumont Foundation Lectures. By Charles H. Mayo, M.D., Prof. of Surgery, University of Minnesota, Mayo Foundation, Rochester, Minn., and Henry W. Plummer, M.D., Prof. of Medicine, University of Minnesota, Mayo Foundation, Rochester, Minn. Series number four. Price $1.75. The C. V. Mosby Company, St. Louis.

Modern Methods of Amputation. By Thomas G. Orr, M.D., Prof. of Surgery, University of Kansas. Price, $3.50, with 125 illustrations. C. V. Mosby Company, St. Louis, 1926.

A Manual of Normal Physical Signs. By Wyndham B. Blanton, M.D., Associate in Medicine, Medical College of Virginia, Richmond, Va. Price, $2.50. C. V. Mosby Company, St. Louis, 1926.

Nursery Guide for Mothers and Children's Nurses. By Louis W. Sauer, M.D., Senior Attending Pediatrician, Evanston Hospital, and Assistant Attending Physician, Children's Memorial Hospital, Chicago. Second edition. Price, $2.00 C. V. Mosby Company, St. Louis, 1926.

Diseases of the New-Born. By John A. Foote, M. D., Prof. of Diseases of Children, Georgetown University Medical Schoool. A monographic handbook. Illustrated. Price, $5.00. J. B. Lippincott Company, Philadelphia, London and Montreal.

The Medical Clinics of North America. Volume 9, No. 1, July, 1925; St. Louis Number. W. B. Saunders Company, Philadelphia and London.

Nephritis. By Herman Elwyn, M.D., Gouverneur Hospital, New York. The MacMillan Company, New York, 1926.

The Medical Clinics of North America. Volume 9, No. 3, November, 1925. New York Number. W. B. Saunders Company, Philadelphia and London.

Our Present Knowledge of Heredity. A Series of Lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1923-1924. W. B. Saunders Company, Philadelphia and London.

Massage and Therapeutic Exercise. By Mary McMillan. Second edition, reset. Cloth, $2,50, net. W. B. Saunders Company, Philadelphia and London.

Lectures on Nutrition. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington, St. Louis, 1924-25; 12mo; 243 pages, illustrated. W. B. Saunders Company, 1925, Philadelphia and London. Cloth, $2.50, net.

United Fruit Company, fourteenth annual report. Medical Department, United Fruit Company, Boston, Mass., 1925.

A Bipolar Theory of Living Processes. By George W. Crile. The MacMillan Company, New York, 1926.

BOOKS RECEIVED FOR REVIEW

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee, Wisconsin. These new books will be loaned for an inspection period only.

Nasal Accessory Sinuses. Pathology and treatment of the inflammatory diseases of the nasal accessory sinuses. By Prof. Dr. M. Hajek, Chief of the Laryngo-Otological Clinic, University of Vienna. Translated and edited by Joseph D. Heitger, M.D., Louisville, Ky., and French K. Hansel, M.D., St. Louis, Mo. Price, $17.00. Fifth edition, completely revised and enlarged. C. V. Mosby Company, St. Louis, 1926.

Electrothermic Methods in Neoplastic Diseases. (Desiccation and Coagulation.) Designed as a practical handbook of surgical electrotherapy for the use of practitioners and students. By J. Douglas Morgan, M.D. Illustrated with 36 engravings. Price, $2.50. F. A. Davis Company, Philadelphia, 1926.

Medical Clinics of North America. Volume X, No. 1. Philadelphia number, July, 1926. Octavo of 260 pages with 24 illustrations. Per clinic year, July, 1926, to May, 1927. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Surgical Clinics of North America. Volume VI, No. 3. Lahey clinic number, June, 1926. Pages, 214, with 54 illustrations. Per clinic year, February, 1926, to December, 1926. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

Clinical Pediatrics. By John Lovett Morse, M.D., Prof. of Pediatrics, Emeritus, Harvard Medical School. Cloth, $9.00, net. Illustrated. W. B. Saunders Company, Philadelphia and London.

Surgery of Neoplastic Diseases by Electrothermic Methods. By George A. Wyeth, M. D., New York. One hundred and thirty-seven illustrations; price $7.50. Paul B. Hoeber, New York.

The Modern Treatment of Hemorrhoids. By Joseph Franklin Montague, M. D., University and Bellevue Hospital Medical College, New York. One hundred and sixteen illustrations; price $5.00. J. B. Lippincott Company, Philadelphia and London.

Cannula Implants and Review of Implantation Technics in Esthetic Surgery. By Charles Conrad Miller, M. D. Description of technic of implantation of living tissues and foreign material through a cannula. One hundred and seventy-eight pages, eleven illustrations; price $2.00. The Oak Press, Chicago.

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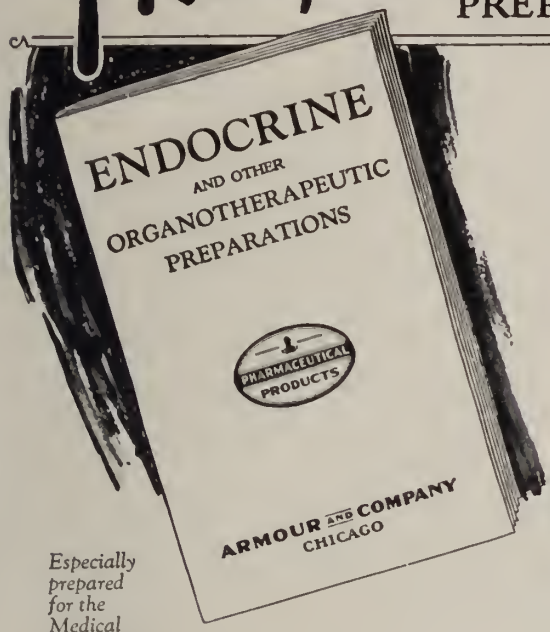

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BOOK REVIEWS

Collected Papers of the Mayo Clinic, Rochester, Minn., 1925. Octavo of 1078 pages, 252 illustrations. Cloth, $13.00 net. W. B. Saunders Company, Philadelphia and London.

This volume of the Collected Papers of the Mayo Clinic is divided into several sections, every section dealing with some special subject. The Alimentary Tract includes 41 papers and takes up 312 pages. The Urogenital Organs includes 36 papers in 246 pages. The Blood and Circulatory Organs is a section of 18 papers in 98 pages. Skin and Syphilis contains 11 papers in 36 pages. Head, Trunk, and Extremities occupies 89 pages with 16 papers. Chest is a short section of 4 papers and 25 pages. Brain, Spinal Cord, and Nerves includes 6 papers in 51 pages. Technic occupies 27 pages with 7 papers. Miscellaneous contains 21 papers of which several are addresses.

There are indexes of Contributors, Bibliography and Subjects.

There are many interesting papers in the volume, some of the most interesting and important from the reviewer's standpoint are but brief abstracts. The volume is well edited and the illustrations are finely reproduced.

There is a long list at the end of each section of Papers by Title and Reference Only.

Such collections are valuable in that they gather into one volume all the scattered papers published in various journals, and they serve as a ready index of the activities of the Clinic Staff.—L. M. W.

The Surgical Clinics of North America. Volume VI, Number II, San Francisco Number, April, 1926. February, 1926, to December, 1926, 250 pages with 73 illustrations. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

The San Francisco Number contains papers from the University of California Medical School, Stanford School of Medicine, and various San Francisco hospitals. Both experimental and practical clinical contributions are made, examples being an experimental study of the pathogenesis of hydronephrosis by Frank Hinman, and a paper on neck dissections by Bartlett and Callander. A series of beautiful illustrations by Ralph Sweet adds materially to the worth of the volume.—S. J. S.

The Surgical Clinics of North America. Volume VI, Number I, Philadelphia Number, February. 1926. February, 1926, to December, 1926, 325 pages with 136 illustrations. Paper, $12.00; cloth, $16.00, net. W. B. Saunders Company, Philadelphia and London.

The February number of this well known publication consists of clinical papers by Philadelphia surgeons, and is in every way in keeping with the high standard set by previous volumes. Material from the following hospitals is presented: Samaritan, Presbyterian, Orthopedic, University of Pennsylvania, Hahnemann, Jefferson, Polyclinic, Methodist, Jewish, Frankford, Philadelphia General, Misericordia, and the Chevalier Jackson Bronchoscopic Clinic. The authors include a wide range of subjects in their discussions.

The Gynecologic Clinic of Dr. John G. Clark, with discussion by various members of his department in the University of Pennsylvania, and the symposium on fractures under the direction of Dr. E. L. Eliason, are especially to be noted. A preliminary report of a cystogram study of cystocele and prolapsus by L. K. Ferguson is one of the most interesting and practical papers dealing with newer methods of diagnosis.—S. J. S.

Fractures and Dislocations. By Wilson & Cochrane. J. B. Lippincott Co., Philadelphia.

In a treatise of 789 pages, including 978 illustrations, the authors have covered the diagnosis and treatment of all fractures, except those of the vault of the skull, and of all of the dislocations. It may be said without hesitation that anyone profoundly interested in the subject of fractures would be amply repaid in reviewing this work. With the wealth of material as found on the Massachusetts General Hospital Fracture Service, combined with that of the Royal Infirmary, Edinburgh, the authors have had unusual advantages in the observation and management of bone injuries.

The first three chapters are devoted to a discussion of principles of treatment, splinting, and the general management of compound fractures. In the succeeding chapters the various fractures and dislocations are taken up in logical order, starting with the shoulder girdle. The plan of presentation of each section has been maintained throughout and is similar in many respects to that employed by Jones & Lovett in their volume on Orthopedic Surgery. Important points in anatomy are first briefly emphasized. Then follow a concise discussion of the regional anatomy, normal and abnormal physiology, and other important considerations, such as land marks, optimum positions during treatment and for ankylosis, anomalies, special features in examination of the patient, etc. In consideration of the various fractures, the paramount idea in the minds of the authors is the attainment of the required immobilization of the broken bone, combined with mobilization of contiguous joints. The authors lay great stress on the physiotherapeutic measures necessary during treatment of each particular fracture. No other contemporary work on fractures describes as comprehensively, even to minutest details, the various splints, fracture bed apparatus, and ingenious plaster paris appliances used in bone injuries. The book would serve admirably as a textbook, not only because of its comprehensiveness, but also because of its simplicity. The authors are to be congratulated on a real contribution to the literature of fractures and dislocations.—J. O. D.

New and Nonofficial Remedies, 1926, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1926. Cloth. Price, postpaid, $1.50. Pp. 459+XLIII. Chicago: American Medical Association, 1926.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicines which are offered to the profession and which the Council deems worthy of recognition.

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An examination of the preface shows that in addition to inclusion of the new drugs which were accepted during the past year, the book has been extensively revised. Many of the preparations listed in the previous edition have been omitted and the descriptions of others have been revised to bring the statements into accord with present day knowledge. Among the products that were accepted during the past year and which are included in the new edition are scarlet fever toxin preparations used to determine susceptibility or to establish immunity and curative scarlet fever antitoxin; a parathyroid extract of determined effect on the calcium content of the blood serum; two antimony compounds for use in trypanosomic infections; tryparsamide, developed in the Rockefeller Institute for Medical Research; tetraiodophthalein sodium for the visualization of the gallbladder and hexylresorcinol, developed by Veader Leonard.

The book contains a cumulative appendix (printed on buff paper), which is a list of references to reports of the Council and to other publications dealing with articles not described in New and Nonofficial Remedies. This appendix is thus a valuable and quite extensive bibliography of proprietary and unofficial preparations.

In reference to the work of the Council on Pharmacy and Chemistry, the Board of Trustees of the American Medical Association in their report to the House of Delegates stated that the success of the Council's endeavors will depend less on the work done by the Council than on the support that is given by the rank and file of the medical profession and that this support can be most efficiently given by physicians (and with fullest justice to themselves and their patients) by confining their use of proprietary medicines to those that have been found acceptable for inclusion in New and Nonofficial Remedies. The physician who desires to support the Council actively should therefore obtain a copy of the 1926 edition. Every physician has need for a book of reference such as this volume to which he may turn for trustworthy information with regard to proprietary medicines.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1925. Cloth. Price, postpaid, $1.00. Pp. 90. Chicago: American Medical Association, 1926.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1925. Some of these reports have appeared in The Journal of the American Medical Association. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked upon as the companion volumes to New and Nonofficial Remedies. While the latter describes the medicinal preparations that are found acceptable, the former contains reports on the products that were not accepted. The present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Agrilin; Benzyl Viburnum Compound; Bichloridol and Salicidol; "Colloidal Gold"; Diabesan; F. & R.'s Genuine Gluten Flour; Geroxide; Hoyt's Gluten Bran Flakes; Horse Dung Allergen-Squibb, House Dust Allergen-Squibb, LePage's Glue Allergen-Squibb and Street Dust Allergen-Squibb; Incitamin; Liposan; Loeser's Intravenous Solution of Calcium Chloride; Loeser's Intravenous Solution of Sodium Thiosulphate; Mercodel; Orargol; Parathyroid with Calcium; Pollen Extract Gramineae, Pollen Extract Chenopodiaceae, Pollen Extract Ambrosiaceae and Pollen Extract Artemisias-P. D. & Co.; Rayminol; Rheumeez; Mitysol; Some Wagner's Preparations; Tablets Calcreose with Iodine; Digifortis; Trepol and Neotrepol; Tricalcine; Viriligen, Glandular Comp. and Pineal Comp.; Vitalait (Vitalait Laboratory, Inc., Newton Centre, Mass.) and Vitanol.

The volume also contains reports on products which were included in former editions of New and Nonofficial Remedies but which will not appear in the 1926 edition because they were found ineligible for further recognition.

The volume contains reports of a general nature: for instance a report on the use and utility of digestive enzymes in therapeutics and a preliminary report on spleen and red bone marrow.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

Hay-Fever and Asthma. A practical handbook for physicians and their patients. By Ray M. Balyeat, M.D. Illustrated. The book discusses in non-technical terms the causes of hay-fever and asthma and outlines the routine management for patients suffering from such disease, with specific treatment for different types. Price, $2.00. F. A. Davis Company, Philadelphia.

This is a very well written book on Hay-Fever, in non-technical terms and should be of immense value to patients suffering from this disease. The book is short and the subject matter well arranged, beginning with the history, general discussion of the causes and relation of plants, animals, etc., to Hay-Fever. It then takes up the symptoms, diagnosis and treatment of the condition. A plea is made for Municipal and State legislation for control and treatment of the disease, and finally a plea for cooperation from the patient.

It gives in some detail the dates of pollination of the hay-fever producing grasses, weeds and trees and their distribution.

However, the author links the terms of Hay-Fever and Asthma so closely together, that the book is very apt to give the patient the impression that Asthma is practically always associated with Hay-Fever. It is true that mention is made of other causes, but relatively very little space is given to the large field of other causes.

In recommending this book to the patient it should be prefaced with an explanation that it deals particularly with that type of Asthma associated with Hay-Fever.

—T. L. T.

The Wisconsin Medical Journal

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The President's Address*

BY JOSEPH F. SMITH
Wausau

I wish at this time to express my appreciation of the opportunity I have had during the last nine months of coming in contact with the members of the State Medical Society of Wisconsin in their meetings in different parts of the state. During this time, eight district meetings and five county society or combination county society meetings have been visited.

The organization of district societies in different parts of the state has been a feature of the year's work. This movement should serve to strengthen both the component county societies and the parent state organization, and it is to be hoped that each district in the state will, in the future, plan to hold at least one meeting a year for its members. In all the societies visited, there has been in evidence a spirit of interest and enthusiasm which speaks well for the future of the county, district, and state societies and promises much for the future of medicine in Wisconsin.

The State Medical Society of Wisconsin now assembled for its eighty-fifth anniversary meeting may well pay homage to the memory of the leaders in medicine who organized this society and carried on its work through the early years of its existence. They builded well and the splendid record made by this society is a tribute and a testimonial to the high ideals possessed by those leaders in early Wisconsin medicine.

The physician should be a lifelong student, and medical organizations, such as the State Medical Society of Wisconsin, have for their chief function the promotion of the science and art of medicine among physicians and the dissemination of this knowledge or its benefits among the people whom the medical profession serves. Organized medicine has always led the advance in medical knowledge and should always continue to do so.

In recent years the science and art of medicine has been profoundly changed in its sociological, educational, and practical aspects. Sociologically, there have been important changes in the public relations of the profession. By training and education, the physician is the one best qualified to direct the public in health matters. In practice, the physician deals with individuals and perhaps there has been a tendency for the doctor himself to become somewhat individualistic. At any rate, there has been some criticism of the profession by the public press on the ground that the profession was prone to keep to itself the knowledge it possessed, or to clothe such knowledge in terms not readily intelligible to the layman, and that the profession itself did not assume its proper share in the guidance of the public in such matters as the licensing of physicians, the control of hospitals, and in the direction of public health activities. A widely circulated and popular weekly magazine a few months ago carried an editorial upon this question from which the following is quoted: "The enlightened physician has a great body of news of the highest importance to communicate to non-medical readers. When the medical profession becomes more awake to its responsibilities in this field, it is to be hoped that it will perceive the gravity and importance of its problem and attack it in force over a nation-wide front. Some national body, such as the American Medical Association, which has made such a good start along these lines, ought to take up the matter in a big way and work out a comprehensive program which would unify the efforts of the agencies already in the field and cover the lay press of the whole country." During the recent agitation against fraudulent practitioners in the city of Milwaukee, one of the large daily papers of that city said editorially: "If the State Board, composed as it is of the different schools of medical thought and, therefore, not likely to be led into unfairly favoring any one school, can conduct a state-wide survey of physicians and then recommend legislation for the control of medical practice, it will be doing a good deal for the public. And it will afford leadership for the great body of honest physicians *who*

*Presented at the Eighty-Fifth Anniversary Meeting, State Medical Society of Wisconsin Madison, Sept. 15-17, 1926.

have not been as active in the protection of those who fall prey to quackery and incompetency as they should have been."

Whether or not these criticisms are deserved, the fact that they have been made by well meaning and responsible groups is a definite indication of the changing attitude of the public toward the medical profession and of the responsibility the public seeks to impose upon medical men.

On account of the more exacting and critical attitude of the public toward the practice of medicine, there has been a shift of physicians from the rural communities and villages to the larger towns and cities, where the physician finds hospital and laboratory facilities for giving his clientele the kind of service in diagnosis and treatment they have come to expect. This change is, undoubtedly, a permanent one, and the people living in the country and smaller villages will be obliged, in many instances, to provide better roads and means for transporting the sick and injured to the larger centers where the kind of treatment they have come to expect can be carried out. The old time family doctor with his one horse shay racing the stork across the New England hills is now only a memory. The physician of today takes the air in his bi-plane and races the stork on his own terms.

Medical education has also undergone profound changes. The so-called independent, or stock company, medical school has disappeared; medical education has now become a function of our universities. Great laboratories for research are being erected, and hospitals connected with these schools are being used to teach the practice of medicine.

The sources of medical knowledge are manifold. From the biological sciences, medicine derives those facts which relate to the life processes in general. From the chemical and physical sciences, it obtains that great mass of knowledge which underlies these life processes and the influences that can be brought to bear upon these vital processes by physical and chemical agents. In the research laboratory, under the eye of the trained observer, disease processes can be seen to run their course under controlled conditions. In the study of cancer, for instance, the transplantable cancers of mice can be followed through many life cycles, and under conditions favorable for observing and recording these observations, which may in the end be invaluable in the study of the disease in human beings.

In spite of the brilliant results obtained in research work upon animals, there are still among us a few misguided sentimentalists who would spare the mice, the cats, and the monkeys, and would sacrifice the children. Many of the brilliant contributions to the science of medicine have been worked out and standardized in the laboratory of some patient research worker who has perhaps toiled for years to establish a single great fact or principle in the treatment of disease. If we recall that in 1853, eight thousand persons died of yellow fever in New Orleans, and that in 1793, ten per cent of the population of Philadelphia died of this same disease, we can readily see the great importance of the fact established by Dr. Walter Reed and his associates, namely, that the mosquito is the intermediate host in the transmission of this disease and that cleaning up the mosquito breeding places and screening houses and sleeping places have completely wiped out this scourge. One of the investigators to prove the theory of the relation of mosquitoes to yellow fever submitted to being bitten by infected mosquitoes and died of the disease.

Bedside observation of the disease processes as manifested in the sickroom is also an important part of medical education and justifies the building of hospitals for clinical study in connection with institutions devoted to medical education. While these facilities for clinical study are to be encouraged, it should be remembered that a study of the patient by the individual physician has often resulted in observations of the greatest importance in medicine.

PROGRESS IN PREVENTION

One hundred and fifty years ago, one person in ten died of smallpox. One-third of all children dying under ten years of age died of this disease, and over fifty per cent of all living persons carried on their faces the scars of smallpox. It has been estimated that in the eighteenth century sixty million people died in Europe from smallpox. Yet the simple observations of a practicing physician, Edward Jenner of England, led to the development of a method of immunization by vaccination, which has made smallpox a disease almost unknown in our day. When the United States took over the Philippine Islands, there were forty thousand deaths a year from smallpox, six thousand in the province around Manila. After complete vaccination had been carried out, the deaths from smallpox fell to almost nothing. Dr.

Weir Mitchell's contributions to the study of nervous diseases, Dr. William Beaumont's study of the physiology of digestion based upon observations made upon his patient, Alexis St. Martin, and the studies of Sir James MacKenzie in the diagnosis of heart disorders are a few of the brilliant contributions to medical science made by individual physicians in the course of their practice and serve to emphasize the importance of careful study of the individual patient by the attending physician. These instances also serve to show that many of the epoch-making advances in medicine have come, not from great teaching centers, nor from research laboratories, but from the practicing physician in the field.

The earlier physicians were trained to treat disease and its end results. The physician of two or three decades ago spent the greater part of his time making calls upon and attempting to alleviate the sufferings of persons ill with diseases which modern preventive medicine has completely wiped out of existence or promises soon so to do. Beside smallpox and yellow fever, we can recall that tetanus or lockjaw, rabies or hydrophobia, typhoid fever, scarlet fever, and many other diseases have been definitely controlled, and the state of New York has adopted the slogan, "No diphtheria in New York in 1930." The mere recital of these facts serves to remind us of the rapidity with which the advances in preventive medicine have come; in fact, these changes have come so rapidly that few of us really realize, except when we pause to consider, how far we have progressed in the matter of disease prevention in the last two decades.

Realizing the importance of educating the public in medical matters, the American Medical Association several years ago adopted a definite plan of lay education by means of public lectures, articles in the lay press, the establishment of Hygeia, a medical journal for laymen, and by radio talks given by leaders in the different medical specialties. This work has been carried on for several years and has resulted in a much better understanding of medical matters by the public.

PERIODIC EXAMINATIONS

It was early recognized by those called upon to treat disease that in far too many instances the physician found himself obliged to deal with end results. The patients often sought relief from incurable diseases, which in their early stages might easily have been controlled, or presented themselves after the ravages of disease had left only a wrecked and damaged hulk to float like a derelict from one physician's office to another. It was also realized that a large proportion, perhaps fifty per cent, of the people never seek legitimate medical advice. On account of these two important conditions, the American Medical Association was led some years ago to sponsor a movement for the regular or periodic examination of apparently healthy persons. This movement, while not new, had never before had the indorsement and support of any large body of medical men. Dr. Dobell in England, as early as 1870, suggested the advisability of periodic health examinations for insurance policy holders. Dr. George M. Gould, an oculist of Philadelphia, in 1900, in an address before the American Medical Association, presented a complete argument for periodic health examinations. Dr. Burnside Foster, in 1909, suggested to the life insurance medical directors that life insurance companies examine their policyholders every five years, and this suggestion was adopted by one of the large insurance companies in the same year. In 1914, periodic examination of the employees of the New York Health Department was instituted by Dr. H. M. Biggs, who was one of the early advocates of this procedure. Extension of the work has been rapid. The National Industrial Conference Board in a recent report states that in two hundred and fifty-five establishments, out of four hundred and forty-six investigated, all applicants for employment undergo physical examinations, and that in many the employees are periodically examined. The report further says: "Physical examinations, therefore, are an insurance and a protection, both to the employee and to the industrial establishment as a whole. Objections to examinations on the part of employees and applicants are practically nil." The army and navy now require annual physical examination of all officers, and under this regulation, twelve thousand officers of the army and nine thousand of the navy are examined each year. The American Medical Association at the St. Louis meeting, in 1922, officially indorsed the movement by resolution of the House of Delegates, and at each annual meeting since it has re-affirmed this indorsement. The St. Louis resolution follows: "Whereas, the need and value of periodic medical examinations of persons supposedly healthy are increasingly appreciated by the public, it is

recommended by the Council on Health and Public Instruction that the House of Delegates authorize the Council to prepare suitable forms for such examinations and publish the same in the Journal of the American Medical Association and that the county medical societies be encouraged to make public declaration that their members are prepared and ready to conduct such examinations, it being understood that the indigent only should be examined free of charge and that all others shall be expected to pay for such service." The resolution was adopted by the House of Delegates and Dr. Haven Emerson of New York was appointed chairman of a committee to prepare such a blank.

The report of the special committee was adopted by the House of Delegates of the American Medical Association at San Francisco in 1923. The Council on Health and Public Instruction was directed to initiate and carry on an active campaign of education among physicians in the necessity and method of conducting thorough and accurate medical examinations of apparently healthy persons through the agency of the state and county medical societies, hospitals and medical schools.

At the meeting of the American Medical Association held in Chicago in 1924, the following resolution was received from the Reference Committee on Hygiene and Public Health and referred to the Board of Trustees for action: "Whereas, the American Medical Association is in sympathy with and has officially approved periodic examinations of apparently healthy persons; and, Whereas, physicians generally require more concrete formulae and suggestions by which such examinations can be effectively accomplished; and,

"Whereas, such assistance can best be provided by a properly prepared manual compiled from existing experience in the field of medical practice;

Therefore, be it resolved, that the House of Delegates direct the Board of Trustees to immediately cause such a manual to be prepared and made available to physicians."

Pursuant to this action, steps were taken to have such a manual prepared under the supervision of the same committee which revised the blank. "The Manual for the Conduct of Periodic Examinations of Apparently Healthy Persons" was prepared and published, and early this year a copy was mailed to each member of the State Medical Society of Wisconsin.

PERSONAL HEALTH—INDIVIDUAL RESPONSIBILITY

The matter of personal health is an individual one. The health department may protect the individual from infection by a contaminated water supply or from unclean milk; it may protect him from contagious diseases by enforcing proper quarantine regulations. It cannot, however, protect him from injury or neglect of his own physical condition. It is only by carrying on a campaign of education regarding the necessity of such care and by providing the facilities for such examinations that the individual can be reached. The success or failure of the movement will depend upon the reaction of individuals to the suggestion. When the individual learns to go at regular intervals to his family physician for a health survey, at least many disease conditions which now lead to untimely deaths may be discovered and warded off.

During the World War, draft boards examined between two and three million young men who were supposedly in the healthiest period of life. *Thirty-eight per cent* of those examined were found to possess physical defects which disqualified them for military service. This led Secretary Weeks on "Preparedness Day" to broadcast the message: "The best way you can keep the nation in preparedness is to go today to your family physician and have a thorough physical examination."

The American Medical Association from the first recognized that this work should be done by the family doctor, by the men in actual practice, and not by specialists. The family physician is in a better position to view the health client as a complete individual, knowing as he does the human mechanism as a whole. He is best qualified to make a general survey of his client's health condition and to ascertain in which system or group of organs any difficulty he may discover lies. He is then in a position to call to his assistance any special help the necessities of the conditions may require. It was the plan, therefore, to approach the physicians first, to secure their interest and cooperation, for it was early recognized that any plan that might be proposed must have the support of the practicing physicians in order to succeed. It, therefore, seemed necessary to devise a scheme which would fit more or less accurately into their daily routine, their office files and methods of keeping records, and into the facilities which they ordinarily have at hand for making examinations. Any other plan of procedure, it seemed, would be doomed to failure from the beginning. With this end in view, the form which

has been prepared by the American Medical Association and the manual which accompanies it has been reduced to the simplest and most abbreviated form possible for obtaining and properly recording the health client's physical condition.

CONCLUSION

In the last few decades, there has been a definite lengthening of the span of human life. This has, however, been largely accomplished by the conservation of child life by better feeding, by the control of epidemics, and by the prevention of infectious diseases. But little has been done to increase the life expectancy of that great group of men and women from forty to sixty years of age who are bearing the stresses and strains of life. At this age, men and women are particularly liable to be attacked by the degenerative diseases, especially of the heart, kidneys, and blood vessels, and by that great scourge of middle life—malignant disease. If men and women can be convinced of the necessity and value of a health survey in the prevention of these two great groups of diseases alone, a very material conservation of human life can be effected at a time when these lives are most needed in the family, in business, and in the professions. Here is an opportunity for the medical profession, as a body, to carry out an outstanding and constructive program which should bring the public into closer touch and sympathy with the profession and result in the addition of at least another decade to the average span of human life.

First Infection In Pulmonary Tuberculosis*†

Radiographic Evidence of Pleural Dissemination in Adult Type

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Probably no other disease has received greater consideration and study than pulmonary tuberculosis. Much has been learned concerning its etiology and clinical symptoms. Great advances have been made in its treatment, yet in no other disease is so little definitely known concerning the initial location or method of infection.

There is no universal agreement as to the portal of entry in tuberculosis, and many even doubt the possibility of infection in adult life. The remarkable researches of Opie and Anderson[1, 2] have done much to establish the facts associated with first infections in tuberculosis. Their full significance is not yet entirely clear, nor is it improbable that some of the facts may remain, as yet, undiscovered. From their observations they have concluded that there are two types of tuberculous involvement, one predominating in infants and young children, the other being the most frequent type occurring in adults.

First infections in children are not prone to affect the apices more than any other portions of the lung. Such infections are always marked by involvement of the regional hilum glands. Caseation is prominent in children, but not in adults. Ghon[3] has shown that the hilum glands which drain the infected area may become caseous and attain greater size than the original focus, which has led to the erroneous opinion that the infection starts in the tracheobronchial nodes.

Apical lesions increase in frequency with the age of the individual; rarely are apical lesions found before ten years of age. In the adult, the tuberculous infection starts in the apex. It either progresses by bronchial extension or heals with fibrosis; there is little tendency to involve the regional lymph nodes and caseation rarely occurs. It is possible, of course, for an individual to attain adult life without previous inoculation with tuberculosis in infancy. In this event, the infantile type of invasion will predominate in the adult lung, showing marked caseation of tracheobronchial nodes and a relatively small parenchymatous involvement; there will be little tendency to fibrosis or calcification. In other words, the apical lesions of adult tuberculosis, which tend to heal by fibrosis, cannot, in the light of this interpretation, be considered as first infections. They must represent secondary infections occurring in an individual previously infected during childhood, in which the primary lesion may have entirely disappeared or remain only as a small calcified deposit. Accepting this interpretation of the two

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types of tuberculous infection, the infantile being a first infection type, the adult (apical) type being a reinfection, the question which naturally presents itself is: Just what factors are concerned in producing these precise types of involvement?

Is it not possible that the adult apical type may also be a reinfection and that the explanation of the two general types may be found in some inherent difference in anatomical construction or physiological function in adults and children? Other pulmonary diseases vary, in mode of onset, course and tissue involvement, in adults and in children. Lobar pneumonia, for instance, when it occurs in adults, starts as a consolidation in the hilum region, rapidly spreading to involve an entire lobe, whereas in children the first consolidation noted is most frequently at the periphery, advancing inward toward the hilum. Often only a small segment of the lobe is involved at the onset and the spread is relatively slower than in the adult type of involvement. Perhaps here also the cause of this variation in the two types of involvement by the same disease, is due to some anatomical or physiological difference in the lungs of children and adults.

For a clearer understanding of the minute anatomy of the lung we are indebted to William Snow Miller[4]. The divisions of the bronchial tree have been traced peripherally through their various stages; bronchus, bronchiole, respiratory bronchiole (being one into which atria open directly, assisting in respiration), atrium and terminal air sac.

It has been determined that the bronchial artery supplies the bronchus and its divisions peripherially as far as the respiratory bronchiole and that from here outward the pulmonary system supplies the minute structure of the lung; the blood from the bronchial and that from the pulmonary circulations mix and the minute capillaries form a network about the alveoli. Miller suggests that at the point of mixing of the two circulations there may be a retardation, offering conditions suitable for the initial tuberculous infection. The very mechanics of chest enlargement by elevation of the ribs produces less lung expansion in the apices than elsewhere in the lungs and would seem to make this a site of predilection for the lodgment and propagation of tuberculous disease.

The fact has been established that definite collections of lymphoid tissue are present at the bifurcation of the smaller divisions of the bron-

Fig. 1. Radiograph (retouched) showing earliest evidence of tuberculous lesion in lung. Note accentuation of the peribronchial markings extending toward hilum from lymph drainage in that direction (Dunham's fan). Note pleural thickening over area involved, due to drainage toward pleura. Note thickening of the interlobar pleura, shortest pleural route of infection to hilum.

chioles, extending to the very periphery of the lung, and that lymph vessels accompany the bronchi and blood vessels, along their entire extent, anastomosing freely with each other and connecting with the lymphatics of the pleura. Lymph drains through these channels, from the region proximal to the respiratory bronchioles, toward the hilum; peripheral to the respiratory bronchioles, lymph drainage is toward the pleura to the pleural lymphatics, parietal and interlobar, returning to the hilum by this route. Here, again, the region of transition of the lymphatic flow is the same region of sluggish blood circulation, a fact which may have significance.

Microscopically, the distance between the respiratory bronchiole and the pleural surface seems rather great, but in reality it is very short. If primary tuberculous involvement occurs at this site, then, for its detection in the radiograph we should examine the very periphery of the lung, just beneath the pleura. Since lymphatic drainage from this region is both toward the hilum and toward the periphery of the lung, we would

Fig. 2. Enlarged radiograph (retouched) to show the character of the lesion as indicated in the involved area.

expect engorgement of the lymphatic channels in both directions.

Those draining toward the hilum region converge as they extend inward, forming a "fan" described by Dunham[5]. Those draining toward the pleura also show evidence of inflammatory reaction, by a thickening of the pleura. Pleural thickening is indicated by a dense line running along the chest wall at the very periphery, the thickening demonstrable only where the margin is viewed in profile. The reaction is most intense in the proximity of the lesion causing it, but close inspection will show evidences of thickening of the pleura over the shortest route to the hilum, over the interlobar pleura. Thickening of the interlobar pleura is present even where the parenchymatous lesion is confined to the apex. Thickening of the interlobar pleura then should always be looked for as a confirmatory radiographic sign in incipient pulmonary tuberculosis. Van Zwaluwenburg[6] demonstrated the presence of thickening of the apical pleura in a large percentage of otherwise normal individuals and concluded therefore that thickening of the apical pleura could not be considered as of pathologic significance. Opie says, however: "It is not possible, as many believe, to draw a line between clinical and latent tuberculous infection. The recognition depends upon the methods furnished by the existing knowledge and skill of the practitioner." The x-ray diagnosis of pulmonary tuberculosis is a purely anatomical diagnosis of lung involvement; if pleural thickening alone is present, unaccompanied by parenchymatous x-ray findings, it can be called nothing more than a thickened pleura, but if it be accompanied by parenchymatous findings in its vicinity it must be considered as a part of the pathological process. The presence of a thickened interlobar pleura is by no means characteristic of incipient pulmonary tuberculosis, any more than Dunham's fan is a specific indication of this disease. Fan formations occur in influenza and other subacute respiratory conditions and have been reported by Jarvis[7] in association with inhalation of rock dust, yet, eliminating these conditions from the individual case, fan formation may be considered as a distinct aid in diagnosis of the very earliest lesion of tuberculosis. Similarly, thickening of the interlobar pleura is by no means characteristic of incipient pulmonary tuberculosis; it occurs in acute inflammatory infections, in chronic inhalation of irritating substances, and even in association with chronic congestive lesions of the lung, such as passive congestion from heart disease. Excluding recent inflammatory lesions and chronic heart disease, however, its occurrence in association with an apical lesion may be con-

Fig. 3. Radiograph showing same conditions as in Figure 2. The lesion here represented is probably one of the earliest indications of tuberculous disease.

sidered as strongly confirmatory of incipient pulmonary tuberculosis.

In an effort to determine the frequency with which the interlobar pleura was thickened in patients suffering from incipient tuberculous lesions, a study was made of 339 incipient cases occurring among 1,000 consecutive tuberculous cases. In anterior radiographs of the chest, made with ordinary technic without reference to demonstration of the interlobar area, thickening of the interlobar pleura was found in approximately two-thirds of the instances. Since the technic used was favorable only for showing the interlobar pleura between the middle and lower lobes on the right side, if only right-sided involvement were considered, a greater percentage of positive findings would have resulted with suitable technic.

I am sure that, with ordinary care and appropriate technic, thickening of the interlobar pleura can be demonstarted in a large majority of incipient tuberculous lesions. The pulmonary fissure dividing the upper from the lower lobe runs forward and downward from the level of about the fourth rib posteriorly to the sixth rib anteriorly. On the right side the middle lobe may be formed at the expense of either the upper or lower lobes, usually at the expense of the lower, the interlobar septum branching off from the septum separating the upper and lower lobes near the axillary line and proceeding downward with a greater obliquity. To show a thickened interlobar pleura in the radiograph, the ray must be projected parallel to its surface. If examination of the chest is made with only the customary technic, centering about the fifth dorsal vertebra, then at best a thickening of the pleura between the upper and middle lobes would show and any thickening between the middle and lower lobes would not show in the x-ray. On the left side, a definite pleural thickening could easily be missed.

For a demonstration of the interlobar pleura in this location a second exposure must be made, centering the tube high and tilting toward the feet.

SUMMARY

The facts established by Opie in connection with first infections in tuberculosis would seem to indicate two distinct types of pulmonary involvement: one, a first infection predominating in children, affecting all portions of the lung with equal frequency, always associated with regional caseous lymph nodes; the other, a reinfection in adults, starting in the apex, tending to fibrosis and healing, never associated with caseous regional lymph nodes. The author feels that the adult type might also be considered as a first infection, the two different types of lesions being due to fundamental differences in anatomy and physiology between the adult's and child's lungs.

The adult type occurs at the periphery of the lung where the bronchial and pulmonary circulations mix. Lymph drainage from this region is in two directions: one, toward the hilum region, giving rise to the appearance of Dunham's fan; the other, toward the pleura, giving rise to thickening of the pleura in the region involved and in the interlobe. Thickening of the interlobar pleura on the involved side was found in a large majority of incipient cases. Thickening of the interlobar pleura is obviously not pathognomonic of incipient tuberculosis, but if the existence of other possible causes can be ruled out, it is of distinct significance when associated with questionable incipient lesions in the apex.

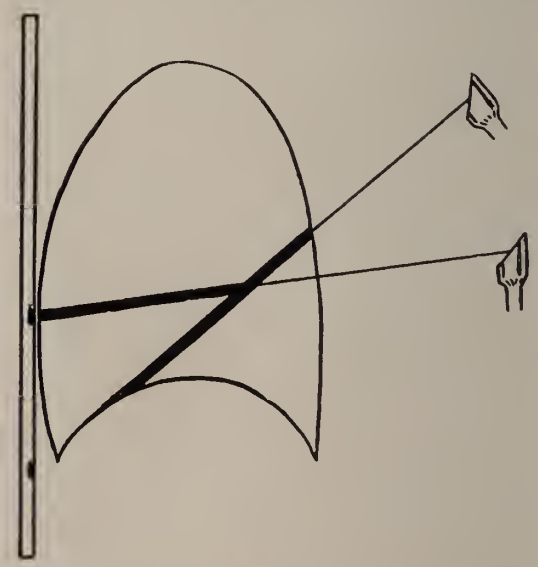

Fig. 4. Technic for demonstrating interlobar pleura. Ordinary technic centering at fifth dorsal with 36-inch tube distance gives proper inclination to show interlobar pleura between middle and upper lobes. Greater inclination of tube toward feet necessary to show interlobar pleura between middle and lower lobes.

REFERENCES

1. Opie, Eugene L., and Anderson, Hans: First Infection with Tuberculosis by Way of the Lungs. Am. Rev. Tuberc., Nov., 1920, IV, 629.

2. Opie, Eugene L.: Phthisiogenesis and Latent Tuberculous Infection. Am. Rev. Tuberc., 1922-23, VI, 525.

3. Bullock, E. S.: Interpretation of Ghon's Work. Southwestern Med., June, 1917, 1, 15.

4. Miller, William Snow: Key Points in Lung Structure. Radiology, March, 1925, IV, 173.

5. Dunham, H. Kennon, and Skavlem, John H.: A Comparative Study of the Pathology and X-Ray Densities of Tuberculous Lung Lesions. Am. Rev. Tuberc., June, 1921, V, 278.

6. Van Zwalnwenburg, J. G., and Wickett, A. D.: Apical Pleuritis, a Statistical Study of Stereoscopic Roentgenograms. Am. Rev. Tuberc., April, 1922, VI, 106.

7. Jarvis, D. C.: A Conception of Chest X-Ray Densities Based on a Study of Granite Dust Inhalation. Am. Jonr. Roentgenol. and Rad. Ther., April, 1922, IX, 226.

An Analysis of Bone and Joint Lesions of Known Syphilitic Origin*†

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A clear description of the evolution of any pathological process in bones and joints, as demonstrated by the x-ray, is often difficult to convey to others, and from the literature as found in many text books and articles on bone and joint syphilis, there is much confusion and unsatisfactory classification or standardization. Especially is this true of joint syphilis. Every known joint lesion, as hypertrophic and atrophic, arthritis, tuberculosis, osteochondritis juvenilis, exostosis, etc., has been attributed to lues. It has been stated that over 50 per cent of joints, routinely diagnosed and treated for tuberculosis, are, in reality, syphilitic and respond rapidly to antisyphilitic treatment. One writer dogmatically asserts that 10 per cent of all chronic joint affections are syphilitic; another, that there is no typical picture of joint syphilis. The Wassermann test is deemed unreliable in bone and joint syphilis and is said to be positive in only 50 per cent. In consequence, an analysis of a large number of known syphilitic bones and joints, from a radiological as well as a clinical point of view, might prove of interest on this occasion.

Syphilis of bones and joints is exceedingly rare in its second stage, presenting no characteristic signs or symptoms; consequently, will be dismissed with brief mention. Gross pathological changes in bones and joints are found only in the third or tertiary stage. Trophic or parasyphilis is a different and distinct problem and will be discussed only in a very general manner. The frequency and virulence of syphilis varies as to social conditions, local morality, and intelligence of the personnel from which the estimate is derived. Statistics have usually been compiled from clinics, with patients of the lowest stratum of life and poorest hygienic conditions. Those under consideration are obtained from the records of a private orthopedic clinic and orthopedic service in general and orthopedic hospitals. A very small number were Negroes. This is a fair average of private practice in America and far above that found in the charity institutions of large cities. All were under personal supervision as to diagnosis as well as treatment.

A survey was made from private records, in which there were 130 with bone and joint syphilis. In addition, there were 13 parasyphilitic joints of the Charcot type and 33 in which syphilis existed coincident to, but independent of, other affections of bones and joints. Of the 130 with bone and joint syphilis, records of the blood Wassermann test were found in 100, of which 88 were distinctly positive and 12 negative. The percentage of positive reactions has been much higher during the past five or six years, since the Wassesrmann test has become better standardized and more efficient. This proves the diagnostic value is about the same as in syphilis in any other portion of the body. As the result of the blood Wassermann has been so satisfactory, the spinal fluid test has been rarely employed.

History of definite trauma was obtained in 35, but the records were not complete on this point; however, they were sufficiently complete to determine that trauma may induce typical luetic lesions in syphilitic subjects.

Of the 130 bone and joint syphilitic cases, 98 were acquired and 32 were congenital or hereditary. As there is much similarity, the entire group will be discussed, after which a comparative analysis will be made. The manifestations of bone syphilis, as demonstrated by the roentgenogram, are well known, and have been so clearly defined by the roentgenologist that any discussion before this Society might appear primitive, but there are, possibly, a few observations worthy of consideration and emphasis.

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Figs. 1 and 2 (left). Beginning periostitis left; periostitis and osteomyelitis right. (Right) Retro-active substitution of proliferative for destructive stage after intensive treatment.

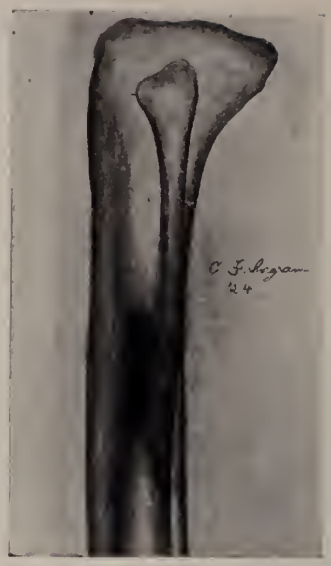

Fig 3. Apparently central origin of the proliferative process.

The pathological process is said to originate in the periosteum, but this in reality is probably doubtful and may be a reaction of central irritation, as has been suggested by the roentgenogram in several instances. Primary periostitis, from any cause, is exceedingly rare, and proliferation of the periosteum is usually the reaction of Nature to irritation in the bone or central canal, as is so clearly demonstrated in acute infectious osteomyelitis.

In all text books two types of syphilis of dense bone are described: first, periostitis; second, osteomyelitis. This is misleading, as they are different stages of the same pathological condition and should be classed as proliferative and degenerative. The proliferative stage, or "periostitis," is the precursor of the degenerative type, or osteomyelitis. There may often be seen definite evidence of the evolution of such a process in different bones of the same individual, and when intensive treatment is administered the lesion becomes retroactive, the degenerative bone increasing in density and returning to the proliferative stage, or periostitis. In spongy bone the process is usually destructive from the onset.

Of the 80 cases with bone syphilis there were 51 in the proliferative period and 29 in the degenerative, the distribution being shown in the following tabulation:

PROLIFERATIVE OR PERIOSTEAL

Tibia	36
Femur	3
Rib	2
Skull	1
Foot	4
Humerus	3
Hand	1
Ulna	1
	51

DESTRUCTIVE OR OSTEOMYELITIC

Ulna	4
Tibia	6
Radius	4
Rib	1

Fig 4. Congenital syphilis: proliferation of periosteum in strata.

Foot	6
Femur	1
Humerus	3
Skull	3
Clavicle	1
	29

In about ten there were more than one focus. It is interesting to note the greater frequency of occurrence of the proliferative stage in the tibia as compared with the degenerative stage, which is probably due to early recognition and arrest of the process before degeneration developed.

The visualization of bone syphilis, as with roentgenoscopy in general, is a matter of instinct, which is acquired alone by experience. Various processes

Fig 5. Typical congenital syphilis in ulna of infant six weeks of age. Note periosteal proliferation and central sequestra.

are often co-existent, but the order of evolution is, in a general manner, as follows:

1. Distribution may be local in any part of a bone, diffuse throughout the entire bone, or multiple foci in two or more bones.

2. The first changes are more frequently apparent on the surface of the bone, as a fuzzy proliferation of the periosteum. Occasionally, the first evidence is a central opacity.

3. The periosteum may be arranged in strata with a definite space between.

4. "Bone blisters" may occur, with proliferation and elevation of the periosteum over a small area, co-existent with a destructive process which may break through the periosteum, forming an umbilicated cavity in the cortex—a bone ulcer.

Fig. 6. Early proliferaative changes as shown by fuzzy proliferation (right humerus).

5. There may be a proliferation of the periosteum in the form of fine bone trabeculæ anastomosing and forming the so-called "lace work."

6. The entire bone may be enlarged, with massive increase in size of cortex and gradual encroachment upon or obliteration of the medulla. The process may be intensified on one surface, giving the appearance of bowing of the entire bone.

7. The degenerative stage, or "osteomyelitis," is manifested by a massive enlargement of bone, with areas of increased opacity alternating with areas of destruction, but not atrophy. The dense hypertrophied periosteum is gradually encroached

Fig. 7. Typical proliferation of the middle third of right femur, only slightly suggestive of sarcoma. The periosteum is better organized than in sarcoma, with formation of bone trabeculæ—so-called "lace work."

Fig. 8. Proliferative stage in the tarso-metatarsal region.

upon and destroyed by the degenerative process. In spongy bone the destructive process is characterized by areas of increased opacity, obliteration of normal trabeculæ and breaking through the surface, forming nodular masses.

8. Opacity is characteristic of syphilis and probably indicates a spurious effort of Nature toward normal hypertrophy. Atrophic changes do not occur, as there is usually slight impairment of function. In other affections atrophy of adjacent parts results from disuse.

9. The occurrence is so frequent in the tibia that a roentgenogram of this bone should be made when bone and joint syphilis is suspected elsewhere, as hypertrophy of the cortex is strongly suggestive of syphilis. This is a point of diagnostic value.

The early changes of periosteal proliferation can be confused only with sclerosing osteomyelitis of Garré, in which condition the enlargement is usually spindle-shaped, in one portion of the bone, and the surface smoother and more regular than in syphilis. There is rarely an occasion to differentiate between syphilis and infectious osteomyelitis, except in the hands of a novice. The picture may be complicated when secondary infection has occurred, as a result of pernicious operative interference or spontaneous evacuation of pus with discharging sinus—a true infectious osteomyelitis engrafted upon syphilitic osteitis.

Pathological fractures occur after extensive destruction and never in the early or proliferative stage, when probably the bone is even stronger than normal. Union in such fractures is not delayed, regardless of treatment.

Spurs of the os calcis, so-called gonorrheal exostosis, have also been attributed to syphilis, but are not a certain indication of either condition. In this location syphilis produces a nodular mass; rarely, a sharp ridge appearing as a spur on side view.

In syphilitic arthritis, as in all diseases of joints, there may be definite pathological changes in the soft structures, as the synovial membrane, ligaments, etc., before invasion of the bones is apparent, as evidenced by—

1. A chronic synovitis with increase of joint fluid and often distention of the capsule.

2. Hypertrophy of the capsule and intra-articular structures, so-called villous arthritis.

In bone syphilis there are usually gross changes prior to the subjective symptoms. In consequence, bone syphilis is early recognized and easily diagnosed, but in joint syphilis failure and confusion in diagnosing are common. It was with the possi-

Fig. 9. Typical destructive process of spongy bone in the foot; increased opacity, with extrusion of bone through cortex. A late lesion approaching the trophic stage.

Fig. 10. Grotesque deformity, with crushing of spongy bone of both os calci from normal weight.

bility of throwing some light on this rather vague subject that this investigation was undertaken. There were 50 cases with joint syphilis, in which the distribution as to location was as follows:

JOINTS

Knee	22
Shoulder	3
Ankle	5
Elbow	3
Foot	5
Hip	6
Spine	3
Jaw	1
Hand	2
	50

Fig. 11. Typical destructive process; areas of increased opacity alternating with areas of degeneration, but no atrophy; pathologic fracture, which is observed only in this stage.

Fig. 12. Syphilitic osteomyelitis complicated by acute infectious osteomyelitis, a secondary infection as a result of unnecessary operation through erroneous diagnosis. Anterior-posterior view showing cavity and osteoporosis.

Fig. 13. Syphilitic and acute infectious osteomyelitis; side view.

Fig. 14. Typical nodular proliferation of os calcis, which is quite different from the common spur or ridge often attributed to gonorrhea and syphilis, but not significant of either affection.

The most characteristic feature of joint syphilis is that the symptoms of pain, muscular spasm and disability are far less than the physical and roentgenological manifestations would indicate. If this fact and the blood Wassermann be taken into consideration, the following changes, when demonstrated by the roentgenogram, are most suggestive, if not pathognomonic:

1. An increase in density of one of the bones of the articulation, often with gross hypertrophy, which is an extension of bone syphilis by continuity.

2. Proliferation of the periosteum on one of the bones forming the articulation, extra-articular and a short distance from the joint surface.

3. A definite punched-out area on the articular or extra-articular surface on the lateral or medial aspect.

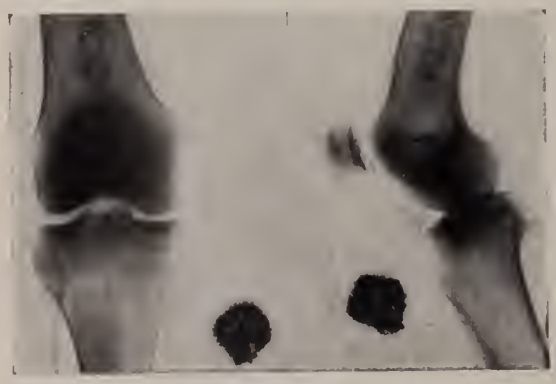

Fig. 15. Central proliferation with subjective symptoms referred to knee. Note oblong area of increased opacity and no proliferation of periosteum.

Fig. 16. Small punched-out spot on lateral aspect of tibia, suggestive of syphilis.

4. A fuzziness of the joint surface, irregular opaque areas beneath the articular surfaces, with irregular, loose, highly refractal particles within the joint.

5. A large opaque area within the cancellous bone and a short distance from the articular surface.

6. Extensive destruction, but without atrophy of bone tissue, unless complicated by secondary infection.

Of the 50 cases, records of the Wassermann test were found in 37, of which 33 were positive and 4

Fig. 17. Increased density, with area of proliferation on outer aspect of tibia. Extension of bone syphilis by direct continuity from below.

Fig. 18. Syphilis of ankle, with punched-out areas on articular surface of tibia and astragalus.

negative; 26 with joint syphilis were acquired and 24 were congenital.

The clinical course of joint syphilis is indefinite, but the tendency is to spontaneous recovery. Bony ankylosis does not occur, though there may be deformity and impairment of function as an end-result.

Spinal syphilis has been suspected in a number of instances in which there were definite bony changes, but not of sufficient individuality to warrant unqualified diagnosis. Apparently syphilis is infrequent in the spinal column; if not, we would surely more often be able to demonstrate

Fig. 19. Syphilis of shoulder, late tertiary stage, with areas of increased density and highly refractal bodies within the joint.

Fig. 20. Syphilitic polyarthritis, congenital, in boy aged seven; increased density in bone; punched-out areas; hypertrophy of capsule and soft structures, but no atrophy in bone.

characteristic syphilitic lesions. Syphilis in the spine, as in the joints, may be arrested by treatment before there is apparent invasion of the bone.

Differentiation has not been attempted between acquired and late congenital syphilis. Only those cases below the age of puberty have been classed as congenital, of which there were 32. Bone syphilis was found in 8 and joint syphilis in 24. Of the bone, 6 were of the periosteal or proliferative stage and 2 in the destructive. Of the 24 joints, 4 showed a polyarthritis, while of acquired syphilitic arthritis there were only 2. Of 20 in which the Wassermann test was made, all were positive. Predilection for joints is particularly noticeable, a large percentage of joint syphilis being congenital.

Roentgenological manifestations in the epiphy-

Fig. 22. Proliferative changes, with increased density, in luetic polyarthritis in girl aged six.

ses are well known, but cannot always be sharply distinguished from rickets. Syphilitic gumma are found in the epiphyses as small, well-defined cavities. Congenital syphilis is usually observed in young growing bone, but does not present sufficient structural variation from acquired syphilis in adults to warrant separate detailed description.

There were 13 trophic joints of the Charcot type—6 knees, 4 hips, 2 ankles and 1 spine—a fact which is mentioned only to emphasize the importance of early detection. Intensive treatment may occasionally arrest the process, as occurred in the case of one knee.

In this survey there were 33 bone and joint

Fig. 21. Congenital syphilitic arthritis in boy aged five; distention of capsule; circumscribed destructive area in upper tibial epiphysis.

lesions in which the clinical and roentgenological evidence did not suggest syphilis, but in all the Wassermann was strongly positive. The diagnoses follow:

NON-SYPHILITIC INFECTION WITH POSITIVE WASSERMANN

Infectious arthritis	8
Tuberculous hip	6
Tuberculous spine	2
Tuberculous knee	1
Myositis	2

Fig. 23. Typical punched-out areas over head of femur; no change in acetabulum; clinically resembles coxa plana (Legg's disease.)

Ununited fractures	4
Fractures	7
Infectious spondylitis	3
	33

Of the 33, a few refused treatment, and a number were returned to their respective physicians. Seventeen received intensive treatment, under personal supervision, being given from six to twelve injections of salvarsan in conjunction with mercury and iodids; 9 cases were diagnosed tuberculous, 2 atrophic arthritis, 3 hypertrophic arthritis and 4 ununited fractures. In not one case could

Fig. 24. Multiple punched-out areas over both femoral surfaces, an end-result of congenital syphilitic arthritis by spontaneous recovery without treatment.

the slightest beneficial effect on the pathological process be attributed to anti-syphilitic treatment. This tends to refute the statement so frequently made that syphilis may assume all of the characteristics of every known joint disease. If syphilis of joints so closely resembles other affections, it does seem that one in this group might have been observed to respond to anti-syphilitic treatment. The fact that the Wassermann is positive or that there is a definite history of syphilis does not prove *per se* that any lesion in question is syphilis. It must be remembered that a host may harbor more than one disease at a time, as is so well demonstrated in this series.

The diagnosis of any pathological process cannot be and should not be made by the roentgenogram alone. Bone tissue varies in reaction to the same reagent and may show similar changes from different etiological factors, but there are certain definite manifestations, above described, which, when taken into consideration with the Wassermann test and clinical and physical observation, are conclusive, and the diagnosis of joint syphilis, as well as of bone syphilis, can, in a very large percentage, be accurately made. Consequently, in the light of our present knowledge, to consider all chronic joint infections, suggestive of lues, is not alone untenable but unscientific.

The Roentgenologist as a Consultant*

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The value of the roentgen ray as a diagnostic and therapeutic agent in practically every branch of medicine and surgery has become firmly established and is generally recognized. Most medical men who keep abreast of the times are fairly familiar with the conditions in which its use is indicated, but many of them are not fully cognizant of its entire scope of usefulness nor conversant with its practical application. Nor is this surprising in view of the fact that a comparatively short period of time has elapsed since its discovery and remarkable progress has been made in the field of its applicability since then. Many men in active practice today were graduated prior to its discovery and, therefore, received no instruction relative to its use during their student days. Even now the attention given to it in the curriculum of some of our best medical schools is entirely inadequate to acquaint the student with it sufficiently to enable him to utilize it directly or indirectly to the full extent it deserves. Usually the intern days are overcrowded with other duties which preclude more than a very superficial acquaintanceship with the roentgen laboratory and its workings.

The claim that roentgenology is a specialty is freely admitted and most men in general practice as well as those engaged in other specialties are not only willing but desirous of having the roentgenologist interpret the findings of his examination to them, or delegate the application of the ray therapeutically to him. However, instead of asking him to apply his special knowledge in helping them to solve a diagnostic problem or aid in the treatment of a case, it is the common practice to request that a specified examination be made or therapeutic application be given. It is the purpose of this paper to show that this frequently fails to give the desired information or result and that the best interests of both the patient and his doctor would be better served if the roentgenologist were regarded as a consultant and given every opportunity to utilize his knowledge and experience to assist in obtaining the object sought. Only in this way, can all the potential value of roentgenology be realized.

In clinics and hospitals where there is more or less close cooperation between members of the staff, a consultation as to the most advantageous course to pursue in a given case is quite feasible; but in practice, at least as far as diagnostic work is concerned, it is held only in exceptional instances. In many such institutions there is some sort of conference, *after* a specified examiation has been made, to consider the possibilities in the light of the clinical history and other laboratory findings. Although this is of great value in arriving at conclusions, it is only a step in the right direction. It would be ideal if such conferences could be held both *before* as well as *after* the examination—before, to determine what ought to be done and the best manner of doing it, and after, to interpret the findings in conjunction with other available data pertinent thereto. Unfortunately, such an arrangement even in institutions is not always practicable,

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for it is time-consuming and certain to interfere with the accomplishment of routine duties. In private practice it is almost out of the question. Approximately similar benefits might accrue if, instead of being asked to make a specific examination, the roentgenologist were furnished with a brief history of the case as ascertained by the clinician and instructed to make such examination as in his judgment might help to make a diagnosis. His findings could then be evaluated by the clinician, or, preferably, be discussed with the latter. Such a course would add very materially to the responsibilities of the roentgenologist for it is very much simpler and easier to carry out a definite order and report the findings thereof than to be made a partner in a diagnostic problem. However, if he aspires to be more than a mere technician and has the interests of his work, the welfare of the patient, and the desire to best serve his fellow practitioner at heart, he will welcome such added responsibility. It is far more satisfactory to make a positive report than a negative one, or if a negative one must be made, to feel that all his resources have been used to justify it.

In order to illustrate how a lack of cooperation may be inimical to the patient's welfare and frustrate the attending physician's good intentions of giving him the benefit of this valuable aid in diagnosis, a few of the many ways in which every day practice operates to defeat the object sought will be cited and suggestions offered to facilitate getting desired results. In a case of trauma it is a common practice to request that a localized area be examined and frequently even the method of making it is specified, as for an example, a fluoroscopic examination, or one or more films made at certain angles. At times the evident signs of trauma, such as ecchymoses, swellings, abrasions, etc., may be located at some distance from the bone injury and unless the entire area under suspicion be examined, a fracture may be overlooked. Thus, a partial or impacted fracture of the upper end of the humerus may manifest marked changes lower down in the arm; a fracture of one of the bones in the forearm or leg, at or near the distal end, may be associated with another of the other bones some distance proximal to it. In infants and young children, especially where local evidences are wanting and the patient gives little information to assist in localizing the trauma, it is very essential that the entire extremity be examined, if marked disability is present. As regards fluoroscopic examinations, the fact is frequently lost sight of that the result of this in no wise approaches in detail the film. A definite negative finding of fracture by this method only, is impossible. It is a curious fact that doubtful or improbable fracture cases are the ones we are often asked to examine in this manner and in these all the details which only a good negative can give are essential to visualize a possible incomplete, impacted, greenstick or similar fracture. Then again, one or two definite views are asked for and these may give negative or inconclusive evidence. At times a special technique, such as an oblique or other exposure, is indicated to bring a fracture line into view.

Much the same conditions obtain in examinations for foreign bodies. These may be located at some distance from the portal of entry and if only a localized examination be made, they may be overlooked. In this connection it may be well to emphasize the fact that a demonstrable variation in density is a prime essential in the detection of any foreign body. Objects which may not be visible in soft tissues may be quite clearly visualized when in juxtaposition to air-filled lungs. Radioluscent bodies may produce secondary changes in the lungs which warrant the inference of their presence. A foreign body which supposedly has been swallowed should be searched for from the pharynx to the anus, not omitting the chest as it may have been aspirated. At times the giving of a small amount of an opaque suspension may assist in their localization. In localizing foreign bodies, the roentgenologist's knowledge of the various methods in use can help materially in choosing the one best suited to the particular case.

In the diagnosis of bone and joint lesions the fact that these sometimes cause symptoms at some distance from the disease is occasionally lost sight of and instead of being asked to locate the lesion, if possible, the roentgenologist is requested to examine definite parts which may be entirely normal. Abscesses and sinuses originating from such lesions may follow devious courses; they may open at points remote from their origin and be associated with few, if any, local symptoms to indicate their source. Here stereo-roentgenograms made after injecting the sinus with an opaque substance, such as bismuth paste, may reveal not only the various ramifications of the sinus but trace it to the causative lesion.

In these days, when our attention is being cen-

tered so extensively upon focal infection as the cause for numerous ailments, patients with pains about joints variously diagnosed clinically as neuritis, rheumatism, etc., are frequently referred for examination of the teeth, sinuses, or other possible infective foci, without making any attempt to ascertain local conditions roentgenographically. Thus cases of bursitis with calcification, a beginning neoplasm, a periostitis, loose bodies, or a specific infection of the bone or joint may be occasionally overlooked. Even though only the common changes of an arthritis deformans be shown, these may give valuable information from the standpoint of prognosis and therapy. In the case of backache, a demonstrable spondylitis may serve to eliminate other possible causes in some cases.

In chest conditions, requests for a single film or a fluoroscopic examination only, if carried out, often fail to give the information wanted. To be of value, such an examination should be made both fluoroscopically and by films, preferably stereoscopic ones, or two or more single ones, taken in different directions. The fluoroscope not only gives findings relative to moving parts and points of fixation, but by permitting the examination to be made at different angles and in various positions it frequently shows pathology which otherwise would be obscured, or helps to explain doubtful findings. The films show details not discernible on the screen. At times it may be necessary to give an opaque meal to clear up points in regard to mediastinal shadows.

In examinations for possible lesions within the abdomen, cooperation with the roentgenologist is of the utmost importance. Certain conditions are undeniably sufficiently characteristic and clean cut clinically to warrant specific examinations to confirm the diagnosis. Many others, however—and these are the very ones where a roentgen examination is most often indicated—suggest a number of possible lesions, and to limit the examination to any particular part frequently nullifies the value of such an examination. Thus, in the case of obscure gastro-intestinal symptoms, an examination which includes only the stomach, the duodenum, the gall-bladder, the appendix or the colon, may fail to show the causative lesion or give evidence of only one of several co-existing ones. In all such cases the entire gastro-intestinal tract should be investigated and the manner of doing it should be left largely to the discretion of the roentgenologist. Ordinarily, he will as a matter of routine, examine the chest and abdomen fluoroscopically and possibly by films before giving an opaque meal or enema, to detect possible pathology which may have a bearing on the symptoms. In quite a few cases unsuspected cardiac and pulmonary lesions are discovered in this way and kidney or gallstones, spondylitis, calcified glands, or other pathology detected. Details of technique vary considerably with different roentgenologists; some of them rely largely on fluoroscopic examinations, others consider "serial films" essential, and still others use a combination of screen and film exposures. Some consider an opaque meal sufficient or even preferable to the opaque enema to demonstrate colon pathology except in special cases, whereas others advise the use of the enema in conjunction with the meal in practically every instance. The indications in a particular case usually influence the course to be adopted and the roentgenologist should be the one best able to decide upon it. The method of the individual operator is immaterial; the results he obtains are all important. Unless there be valid reasons for making definite requests, attempts to fix the number of exposures, the intervals between them or the manner in which they are to be made, are not conducive to getting the best results.

No roentgen examination for gallstones or gall-bladder pathology is complete unless the taking of films of the gall-bladder region is supplemented by an opaque meal examination of the gastro-intestinal tract; in this way evidences of adhesions to the stomach, duodenum or colon, or "gall-bladder seats" may be obtained which may be the only roentgen signs demonstrable in a given case suggestive of disease of the biliary passages. The number of cases with positive findings will thus be materially increased.

Conditions of the urinary tract which call for roentgen investigation, such as renal colic, hematuria, etc., require examination of the entire tract in practically every case, even though the symptoms may be localized. A concretion in one part causing trouble may be associated with one or more others elsewhere which are quiescent for the time being. Then again, a stone which apparently was in the kidney at the time of the clinical examination may have moved down the ureter for a variable distance, or one in the ureter may have entered the bladder, or even retrogressed into the kidney. Doubtful shadows may suggest the need

for other examinations to eliminate the possibility of gallstones, faecaliths, calcareous glands, etc. Roentgenograms with shadowgraph catheters in situ, pyelograms, ureterograms or cystograms may be necessary to get the desired information. Although it is outside the domain of the roentgenologist to make some of these special examinations himself it is well within his province to suggest the need for them and show how they may help to clear up the case.

Along these same lines, some of the more recent procedures, such as pneumo-peritoneum examinations and rendering the gall-bladder visible by the intravenous injection of calcium tetrabromphenolpthalein, as advocated by Graham and Cole of St. Louis, offer possibilities of refinement of roentgen diagnosis of great value in some cases. As their use may be associated with untoward results, their general application is hardly to be advocated but in special cases they may be indicated. If other methods are negative, or give findings of doubtful value, the added information which such examinations may give should be given consideration and the advisability of using them discussed.

Determination of foci of infection is another field in which cooperation would produce optimal results. In such cases it would be far preferable to give the roentgenologist an opportunity to use his judgment as to the examinations to be made instead of limiting him to some particular one. In the first place, the fact that various foci may be present simultaneously is lost sight of and the detection and correction of one of them may produce little benefit. Usually a patient will submit far more readily to a complete thorough examination if its importance is impressed upon him than to successive isolated ones, especially if the earlier ones are negative. Instead of asking for a complete set of dental roentgenograms when even a close inspection of the mouth reveals only isolated suspicious teeth, it might be preferable to ray only those and in addition to examine the sinuses or even the chest and abdomen, if conditions warrant. Here again, the danger of ascribing various pains to focal infection and neglecting possible local causes is to be emphasized. Headaches may originate directly from sinus disease; a "neuritis" of the arm be dependent on a cervical rib, and various chest and abdominal pains and "sciatica" due to a spondylitis; the latter may be secondary to a focal infection, but it may be the direct cause of the symptoms from which the patient is seeking relief.

The matter of expense to be incurred probably influences many physicians to direct the making of limited examinations; their patients' financial circumstances may demand the utmost economy. To begin with, the procedure indicated in a given case may not necessarily be more costly than the one requested; in fact, it may be less so in some instances. Any price, no matter how cheap, is high if the service rendered does not give value received, and an examination which gives little or no information is of little or no value. Usually the expense of a comprehensive examination made at one time is less than successive isolated ones. The loss of time involved and occasionally the opportunity to restore the patient to well-being and full earning capacity may more than offset any additional cost. Every roentgenologist worthy of his calling is willing to make concessions when indicated and rather than curtail the examination for pecuniary reasons he is usually anxious to apply all of his resources to obtain the desired information, if given an opportunity.

In roentgen therapy the need for cooperation is equally great, if not greater, than in diagnosis. This phase of the work has made rapid strides of advancement within the last few years and modern installations are powerful instruments of precision which require much skill in administration. The conditions in which this form of treatment are indicated are fairly well defined, although some of them are still more or less in the experimental stage, and others are matter of controversy. Consultations relative to cases in which this form of therapy is under consideration, held prior to the application, will serve to eliminate those cases which offer no prospects of benefit and properly select others in which roentgen therapy alone or combined with other modalities such as surgery, radium, diathermy, or other treatment offers the best chance for cure. The state of the patient and the object to be attained, whether prophylaxis, attempt at cure or palliation, may influence the manner in which the treatments are to be given. As regards the technique of application, that should be left to the roentgenologist's judgment.

Undoubtedly, the need and desirability of active cooperation, between the roentgenologist and physician referring cases for diagnosis or treatment to him, could be shown in many other ways. With the increasing scope of medical knowledge,

mastery of the details of all branches of it is impossible. Hence, the development of specialties, and roentgenology can claim the same justification for being one as any of the others and is entitled to the same prerogatives which they possess. There is a tendency in some quarters to look upon the roentgenologist as a technician who is to be instructed as to what is to be done and frequently as to the manner of doing it. Formerly, when this work was delegated to orderlies, nurses, or other laymen without adequate medical knowledge, this course may have been proper. Nowadays, when every roentgenologist is or should be a duly qualified medical graduate who has made a special study of this field, this practice is neither desirable nor advantageous to the best interests of those concerned. Only, when he is regarded in the light of a consultant, will he be able to apply his special knowledge as it should be applied and the full benefit of roentgenology be attained.

The Newer Clinical Aspects of Gastric Carcinoma*†

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The traditional conception of gastric carcinoma from the standpoint of diagnosis and prognosis is in need of revision in the light of modern medical progress. This can be said, even though the genesis of carcinoma itself still remains unexplained and there is no reliable specific test for its early detection. The pathologist, surgeon and roentgenologist in particular have added much to our knowledge of carcinoma in its various forms, and their contributions have been of aid in its earlier detection. To be more specific, the pathologist's conception of the evidence of the malignant transformation of a benign ulcer, and the roentgenologist's recognition and localization of circumscribed lesions, with an estimation of their probable size and extent, and the diagnostic significance of other clinical aspects that I shall discuss, have made possible earlier recognition of actual and potential malignant processes in the stomach.

As proof of progress two sets of statistics may be briefly compared, one compiled in 1914 by Friedenwald and another from material in the Mayo Clinic, seven years later. In a clinical study of 1,000 cases of cancer of the stomach Friedenwald noted that a palpable tumor was present in 72 per cent, anacidity in 89 per cent, occult blood in 92.5 per cent, and the Oppler-Boas bacillus in 79 per cent. In only 28 per cent of these was operation performed, and of these, a radical operation was performed in only 3.3 per cent. During the years from 1918 to 1920, inclusive, 1,408 patients with gastric carcinoma came under our observation. In 777 no operation was carried out. The majority of these were inoperable, from the standpoint of physical or roentgenographic examinations, or both. Of 631 patients who underwent operation, 80 had carcinomatous ulcers. Palpable masses were found in 51 per cent of these cases, gastric retention in 60 per cent, anacidity in only 55 per cent. A radical operation for resection of the tumor or lesion was performed in 46 per cent, some form of palliative operation in 16 per cent, and in the remainder, 38 per cent, exploration only was done. Of further interest was the fact that 45 per cent of carcinomatous ulcers were recorded as simple benign lesions, 41.25 per cent as malignant ulcers, and in 13.75 per cent the diagnosis was that of probable malignant ulcer. In other words, in more than 40 per cent of the cases of malignant ulcer the case history, clinical and roentgenologic findings were indistinguishable from those associated with chronic benign gastric ulcer. It is reasonable to infer that the malignant lesions in the second series were detected at an earlier and more operable stage in the aggregate.

Such improvement justifies more optimism than has prevailed in the past with regard to carcinoma of the stomach. However, in spite of gradual progress, particularly in roentgenologic methods of diagnosis, certain factors inherent to carcinoma of the internal organs, to which gastric cancer is no exception, make the problem of early recognition a formidable one; gastric carcinoma may give but few, if any, symptoms until it is well advanced, or the symptoms may be protean in nature. Moreover, the primary situation of the growth may be such as to make it irremovable, or the prognosis following removal may be bad, even if the diag-

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nosis is made early. These features, and the fact that the patient may put off seeking medical attention, and even his medical adviser occasionally belittle the significance of the gastric disturbances, which usually have a more serious import after middle life, warrant in a large measure the pessimism manifested in some quarters even today in regard to the ultimate prognosis in cases of carcinoma. Less than half of such patients coming to the clinic are operated on, and in only 25 per cent is the growth confined to the stomach at the time of the operation. Statistics based on a larger, though earlier, series of 2,100 cases in which operation was performed, show that the lesion was removed in 35 per cent only, exploration carried out in 35 per cent, and some form of palliative operation performed in the remaining 30 per cent.

SYMPTOMS

The major complaints may range from asthenia or anemia to the pain, vomiting and cachexia of a perforating obstructing lesion. In 47 per cent of the proved cases of gastric carcinoma in the Mayo Clinic, the history was that of the accepted syndrome of benign ulcer. The familiar clinical picture of carcinoma with the characteristic findings on gastric analysis or physical examination, represents a frank or advanced stage. Occasionally a short duration of symptoms (the lesion being clinically early) may be associated with achlorhydria, blood in the gastric contents, gastric retention, palpable tumor or findings usually characteristic of the advanced lesion (Fig. 1). The symptoms are conditioned largely by the site and extent, and especially by the degree of motor impairment. Obviously, a lesion at the pylorus will engender symptoms different from those produced by one at the cardia; a lesion in the body of the stomach may be silent until well advanced; when the lesion is malignant and more or less circumscribed, the presenting symptoms may be quite characteristic of benign ulcer and the clinical course an intermittent one, responding favorably to treatment at the outset. Exclusive of the non-obstructing small lesions, and of some of larger extent in a high-lying stomach, the majority of the cases of gastric carcinoma are readily diagnosable as such on the basis of history, physical examination and gastric analysis. In these the fluoroscopic and roentgenographic findings serve to confirm the diagnosis, determine the situation and extent of the lesion, and furnish criteria of operability so far as the stomach itself is concerned. Under any circumstances the experienced clinician seeks out and is cognizant of the significance of late onset, failure of adequate response to proper treatment, the steady progression, the resigned demeanor or depression, appearance suggestive of anemia, metastatic phenomena, and loss of weight out of proportion to the symptoms, all of which should be considered as positive evidence of carcinoma until proved otherwise. He is also mindful of those constitutional diseases, chronic toxic or septic states, those chronic inflammatory lesions of the accessory digestive tract which directly or reflexly cause gastric disturbances, and systemic changes or even gastroenteric hemorrhage, all of which may be erroneously attributed to the presence of gastric carcinoma. Under such circumstances a negative roentgenologic examination of the stomach is, of course, of peculiar value, time-saving, and reassuring to the examiner.

MALIGNANT TRANSFORMATION OF A BENIGN ULCER

When a benign ulcer has become malignant, the alert clinician can frequently elicit a slight suspicious change in the nature of the symptoms, even before there is anything characteristic in the examination of the test-meal or roentgenologic findings, or even, indeed, before any signs of malignancy can be grossly seen in the ulcer. Such changes may be summarized as follows: (1) loss of periodicity of attacks; the attacks are longer and the intervals of relief shorter; (2) loss of periodicity of pain, the pain tending to persist after eating; (3) less severe pain, but a more constant dull ache, increased by eating; (4) loss of appetite, which may ensue even when the test-meal shows the high acidity characteristic of ulcer; (5) variation in the vomiting, which may diminish in amount and frequency although it is rarely increased unless there is obstruction; when this symptom is present it will no longer produce complete relief from pain; (6) diminution in gastric acidity compared with that of a recent test-meal, and (7) persistent occult blood in the feces when the diet is controlled in cases in which the neoplasm has progressed beyond the microscopic stage. Allowance must be made for the fact that such changes may be induced by the complications of ulcer, particularly hour-glass deformity, penetration or slow perforation into the pancreas or liver, and pyloric obstruction. Such changes are as a rule never so early or so marked in these complica-

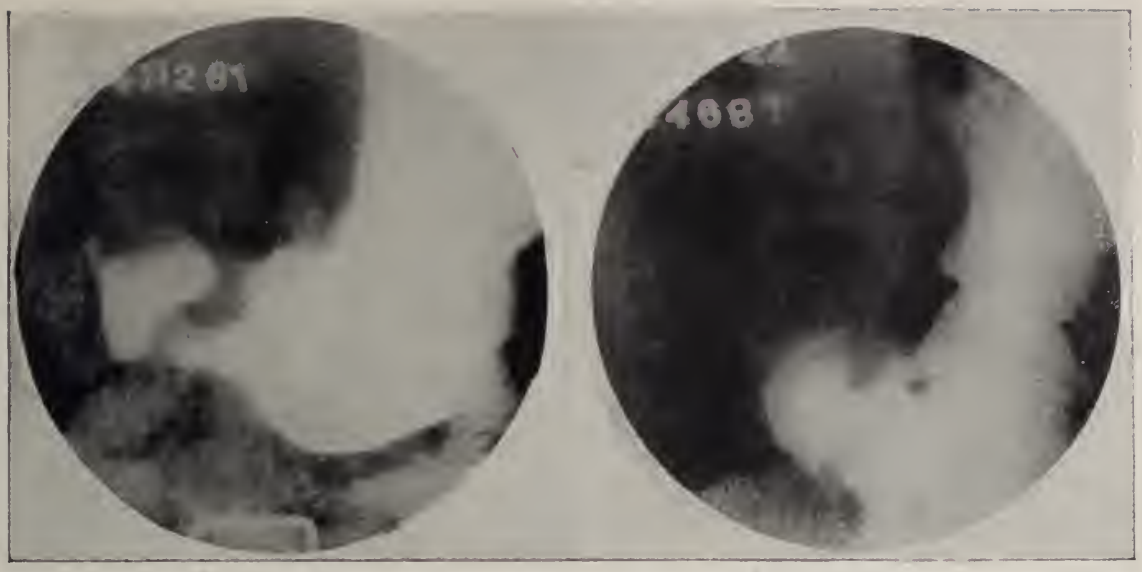

Fig. 1. Roentgenologic appearance that of tumor of the posterior wall of the stomach near antrum, probably benign.

Fig. 2. Roentgenologic appearance that of gastric ulcer rather high on lesser curvature.

tions. In the demonstrable absence of such complications malignant disease of the stomach should be strongly suspected. Roentgenologic indications of malignancy, such as the niche type of ulcer with an unusually large crater, and the roentgenoscopic demonstration of ulcerating carcinoma with a meniscus-like crater, constitute a significant advance. In the presence of such findings surgical interference should not be delayed, other things being equal (Fig. 2).

DIFFERENTIAL DIAGNOSIS

The cancer age is one when degenerative changes in vital organs are prone to occur which, among other causes mentioned, give rise to gastric disturbances and physical deterioration which may simulate those attributable to gastric carcinoma. A negative roentgenologic examination invariably makes one seek elsewhere for the cause of the symptoms. Where an intrinsic gastric lesion is demonstrable or highly probable, the internist and surgeon must decide whether it is benign or malignant, as the welfare of the patient is so vitally concerned. To differentiate chronic benign ulcer and its complications from a malignant one is our commonest problem. The uncertainty attending the task has already been mentioned.

Perhaps next in importance is the differentiation of gastric syphilis, because of its relative frequency. Fortunately, circumscribed syphilitic ulcers are rare, and quite indistinguishable roentgenologically from benign or malignant ones. I have reported one such case. Benign tumors represent 1.3 per cent of all gastric tumors that are seen at operation. As has been shown by Carman and Moore, both gastric syphilis and benign tumors have certain roentgenologic characteristics by virtue of which their true nature can be often ascertained or surmised. So far as the clinician is concerned fibromatosis, sarcoma, lymphosarcoma, malignant papilloma and other like lesions are considered in the same light as carcinoma. Primary carcinoma of the duodenum, a series of which I have recently reported, and carcinoma of the pancreas, especially when not associated with jaundice, and when by extension it involves the stomach or obstructs the duodenum, may give rise to difficulty in differential diagnosis. On account of the rarity of such lesions we are occasionally caught off our guard, especially when the period of observation is a limited one.

Small or circumscribed gastric lesions that prove to be carcinomatous are of the greatest clinical interest because of their bearing on diagnosis, treatment and prognosis. Carman has reiterated the fact that in their gross characteristics and roentgenologic appearance these ulcers are not usually different from benign ones (Figs. 1, 2, 3, and 4). MacCarty has shown that ulcers with craters 2.5 cm. in diameter or larger are often malignant, and this is borne out by the roentgenologist. Yet in the last analysis one must be conservative, for

small ulcers are often malignant on histologic examination and large ones may be benign. Other clinical evidence may throw no further light on the nature of the lesion.

CLINICAL AIDS IN DIFFERENTIAL DIAGNOSIS OF BENIGN AND CIRCUMSCRIBED MALIGNANT GASTRIC ULCERS

In the last five years 218 patients underwent gastric resection for removal of either a carcinomatous ulcer, or an ulcerating carcinoma of small size. Seventeen of these patients (8 per cent) were less than forty years, averaging thirty-five; fourteen were males. (In fact, 74 per cent of all patients with gastric carcinoma are males.) The average duration of symptoms in this group was three years. In only three cases was achlorhydria present. On the other hand, hyperacidity was present only in one, in which the lesion was of the subacute perforating type and the history characteristic of ulcer. Subacidity predominated in the remainder. The average size of the crater in this group was a little more than 3 cm. In order to determine in what way gross clinical factors may help distinguish between malignant and benign gastric ulcers a series of 576 cases of benign ulcer, in which operation was performed during the same period, were reviewed. With the average age of the patient with malignant neoplasm, of all types, is about fifty-four, a suspicion of malignant disease may be entertained between the ages of forty and forty-five, especially if the complaint is of recent onset. Somewhat to my surprise there were 129 patients aged forty or more, in the series of 576 cases, with a history of gastric disturbances of three years' duration, or less. The average age of these patients was fifty-three and the average duration of symptoms a year and a half.

A second group of cases numbering 116, in whom the symptoms had developed after the age of forty and had persisted for four years or longer, was then segregated from the series of cases of benign ulcer. The average age was fifty-five years and the average duration of symptoms a little more than eight years. The free hydrochloric acid titer in both groups was either normal or above in 90 per cent.

Observations on the absence of free hydrochloric acid in the series of cases of benign ulcer were instructive. Achlorhydria was present in only six in the first group of 129 cases in which there was a short history of dyspepsia, and in one of these cases death occurred later from gastric carcinoma, verified by ante-mortem examination. Almost without exception the ulcers were situated high on the stomach, had perforated, and were found in patients with marked oral sepsis. In the second group (116 cases) there were also only six which showed pathologic characteristics similar to those of the first group. Thus out of this total of 245 cases of benign gastric ulcer there were actually eleven only with achlorhydria (the case of carcinoma being necessarily excluded). These lesions were considered in all probability of infectious origin on account of the marked focal infection present and because of their perforative tendencies.

To summarize, 8 per cent of carcinomatous ulcers occur in patients less than forty years of age. With our present available methods of diagnosis it is usually impossible to distinguish them from benign ulcer (Fig. 3). Gastric ulcers in patients past middle age may be considered as benign in the presence of adequate acidity even though the symptoms may be of short duration, and gastric ulcers in elderly patients usually remain benign in spite of long duration of symptoms. An adequate acidity is a fair clinical criterion of their non-malignant nature. Only 4.5 per cent of chronic benign gastric ulcers in patients past middle life are associated with achlorhydria. They represent mainly the infectious perforating type. It is reasonable to infer, as experience has taught us, that roentgenologically depicted circumscribed lesions associated with subacidity or anacidity are potentially or actually malignant, with few exceptions (Fig. 4). If there are such additional features as a large crater, tumefaction, early onset of obstruction, onset late in life, an irregular or progressive history in the absence of demonstrable complications, or inability to obtain adequate or complete relief by proper treatment, then malignancy is highly probable, and surgical interference should be urged.

NECESSITY FOR CO-OPERATION OF INTERNIST AND RADIOLOGIST

For diagnostic accuracy it is necessary to marshal all available facts, correlate them logically and base a decision on the preponderance of the evidence. Roentgenography of the stomach in expert hands has reached an enviable state of efficiency so that it almost amounts to an exact science. But circumstances are constantly arising which make essential the use of all our diagnostic

Fig. 3. Roentgenogram normal; apparently benign ulcer of the posterior wall shown roentgenoscopically.

Fig. 4. Roentgenologic appearance that of perforating ulcer of lesser curvature.

resources. The tendency of the profession to skimp the all-important anamnesis and physical examination, the frequent omission of gastric analysis and other simpler tests which, of course, all require time, patience and skill, is to be deplored. Such incomplete examinations, especially when coupled with unskilled roentgenographic examination or faulty interpretation, are a prolific source of error in diagnosis and treatment. The real nature of the lesion, its complications and extensions, its effect on the physical and mental state, the mode of treatment or pre-operative preparation necessary, and the ultimate prognosis all depend on data derived from a systematic examination. To illustrate, a gastric neoplasm operable from a roentgenologic standpoint may be obviously inoperable after careful physical examination, owing to the detection of metastasis of one of various sites remote from the growth. Not infrequently patients in the cancer age, with an intrinsic gastric complaint of short duration, possibly associated with early signs of physical deterioration, give no evidence of a lesion on the screen or roentgenogram. Gastric analysis may also reveal the presence of achlorhydria, possibly of blood, and so forth. During hospital observation there is evidence of persistent blood in the feces and the anamnesis is confirmed and extended. Repeated roentgenologic examination of the stomach, gastroscopic examination or operation reveals an intrinsic lesion, usually high on the posterior wall. The roentgenologist, too, finds it difficult sometimes to judge the nature of small obstructing juxtapyloric lesions and their situation, whether gastric or duodenal. Other clinical data might furnish the clue with a fair degree of certainty, and thus profoundly influence treatment and prognosis. The inflammatory, instead of the neoplastic, nature of tumors, too, is demonstrable by the history of recent acute pain, fever, leukocytosis and sensitiveness. These and other circumstances show the necessity for co-operation, but even with combined effort and judgment we must leave the final answer, frequently enough, to the surgeon and pathologist.

CASE REPORTS

A man aged thirty-six years, complained chiefly of weakness during the previous four months (Fig. 1). Relatives and friends also noticed a decidedly anemic appearance during this time. He had not improved with rest, and milk and egg diet. Two weeks prior to his admission to the clinic he began to experience an epigastric burning sensation, usually at 3 A. M. only, which would awaken him. This distress was relieved by a drink of milk. The local physician found persistent occult blood in the feces.

Examination revealed a small movable mass in the epigastrium. Gastric analysis showed no free hydrochloric acid in the first fraction, but subsequent samples removed at fifteen-minute intervals revealed the presence of free hydrochloric acid in normal strength and quantity. The screen and

roentgenogram outlined a tumor on the posterior wall of the stomach near the antrum. It was regarded as benign rather than malignant. At operation a carcinomatous ulcer 5 cm. in diameter was found. Partial gastrectomy was performed.

A man, aged twenty-six, had undergone gastroenterostomy elsewhere in March, 1920, presumably for duodenal ulcer (Fig. 2). Within two weeks after operation he had a recurrence of symptoms which consisted mostly of eructations, vomiting, and pain, irregular in appearance. The pain was mostly dorsal in location. Examination in December, 1920, showed normal gastric acidity with a tendency toward hypersecretion. Fluoroscopic examination revealed no characteristic deformity, and the new stoma was patent. But operation (January 10, 1921) revealed a small ulcer (11 mm. in diameter), on the lesser curvature of the stomach. This was excised and the patient remained very well for eighteen months. At re-examination (October 10, 1924), there was a history of progressive and painful gastric complaint characteristic of a perforating and adherent or malignant ulcer. Gastric analysis by the fractional method showed complete absence of free hydrochloric acid and the presence of blood. The roentgenoscopic examination and films revealed the niche of a gastric ulcer rather high on the lesser curvature. At operation (October 25, 1924) an ulcer (4 by 4 by 1 cm.) was found, with extension through to the serosa. It proved to be a Grade 3 carcinoma. The patient was alive and well in November, 1925.

A man, aged thirty-one, white, came under observation in January, 1921 (Fig. 3). His complaint was characteristic of chronic peptic ulcer of two years' duration. No ulcer was found either on fluoroscopic examination or at the surgical exploration. As both the appendix and gall bladder showed evidence of disease they were removed. He was re-examined January 14, 1922, because of recurrence of original symptoms after eight months' relief.

The total acidity was 52, free hydrochloric acid 32, and the filtrate 100 c.c. There was no blood.

Roentgenoscopic examination revealed an ulcer on the posterior wall of the stomach, not visible on the films.

At operation (February 10, 1922), transgastric excision of ulcer area with cautery, and posterior gastrojejunostomy were performed. The tissue from the ulcer showed carcinoma microscopically.

November 19, 1925, the patient reported recent gastric distress after meals.

A man, aged sixty-three, white, had gastric distress for thirteen months prior to examination (Fig. 4). This distress appeared from two to three hours after meals and was not relieved by liquids, food or alkalis. There was no nocturnal distress. The total acidity was 58, free hydrochloric 38, and the amount of the contents 65 c.c. Roentgenologic examination showed a perforating ulcer of the lesser curvature in the body of the stomach. At operation (July 11, 1923), a carcinomatous ulcer (5.5 cm. in diameter) was found on the posterior wall of the stomach. Partial gastrectomy was performed. The patient was alive and well in January, 1925.

BIBLIOGRAPHY

1. Carman, R. D.: Benign and malignant gastric ulcers from a roentgenologic viewpoint. Am. Jour. Roentgenol., 1921, VIII, 695-703.

2. Eusterman, G. B.: Circumscribed syphilitic ulcer of the stomach. Can. Med. Assn. Jour., 1922, XII, 91-94.

3. Eusterman, G. B., Berkman, D. M., and Swan, T. S.: Primary carcinoma of the duodenum. Ann. Surg., 1925, LXXXII, 153-163.

4. Eusterman, G. B., and Senty, E. G.: Benign tumors of the stomach. Surg., Gynec., and Obst., 1922, XXXIV, 5-15.

5. Friedenwald, Julius: A clinical study of one thousand cases of cancer of the stomach. Am. Jour. Med. Sci., 1914, CXLVIII, 660-680.

6. Moore, A. B.: A roentgenologic study of benign tumors of the stomach. Am. Jour. Roentgenol. and Rad. Ther., 1924, XI, 61-66.

SOME BROMINIZED OILS FOR RADIOGRAPHIC USE

An investigation into the comparative merits of various types of halogenated oils was made by Tracy Jackson Putnam, Boston (Journal A. M. A., Oct. 2, 1926). He found that the animal oils are less irritating, more easily emulsified, and more quickly absorbed than the vegetable oils at present in use. By forming bromine substitution products, rather than iodine addition compounds, various animal oils may be made sufficiently opaque for many radiographic purposes. From several comparative biologic tests for such materials, it appears that air is more irritating to the tissues than any of the oils in use. Lard oil containing 40 per cent bromine appears to be the most suitable of the oils tested for myelography, pneumography, etc. Lard oil containing 11 per cent of bromine has a lower specific gravity than the body fluids, and might be used for ventriculography by the spinal route, to outline the surface of collections of fluid, etc. Permanent emulsions of these oils may be made, and are fine enough to be injected intravenously. They may be useful in pyelography, etc. Brominized sperm oil is the darkest and at the same time the least viscous of the halogenated oils tested. It is more irritating than lard oil, and does not emulsify easily, but may find special uses.

THE JOURNAL CLINIC

Fracture of Humerus: Non-Union*

BY H. B. PODLASKY, M. D.
Milwaukee

The following case report may be of interest to industrial physicians from the standpoint of estimating permanent disability. The patient was admitted through the service of Dr. S. H. Wetzler for a hernia operation. During the physical examination an interesting condition of the left humerus was observed.

Non-union is, of course, frequently observed in fractures and the resulting disability is, as a rule, very great. In this patient, however, several attempts at reduction, both by the closed and open methods, had resulted in failure. After thirteen months of attempts at union the patient refused further treatment and went back to his occupation of teamster. After fourteen years of continuous employment with the same company, he has become accustomed to the handling of a pick and shovel so that one finds it rather difficult to observe any deformity or "hitch" in the movements accompanying the use of these implements.

F. K., age 52, injured May 3, 1911. Team ran away and wagon passed over the man's left humerus. The injury consisted of a fracture of the left humerus at about the junction of the upper and middle thirds. Reduction was attempted. Patient remained in a "sling" for about three weeks, then was put in a cast for two months. This treatment did not result in union. An open operation was then attempted. The fracture was wired and a cast again applied, without union.

Thirteen months after the injury the patient went back to his previous employment as teamster and has gradually developed a pseudo-joint at the site of the fracture and well developed muscles of the left arm and forearm.

Roentgenograms and photographs made May 12, 1925.

*From Radiology, 1926.

Fig. 1. Left humerus, palm down, elbow flexed, fragments displaced. Note smoothness of lower end of upper fragment, broken pieces of wire, and new bone fragments.

Fig. 2. Position assumed easily; note flexibility at site of non-union.

Duplication of Ureter; Case Report

BY C. A. H. FORTIER, M.D.
Milwaukee

Duplication of the ureter is usually accompanied by double or fused kidney and as a consequence by duplication of the kidney pelvis. The two pelves are generally placed one above the other. The lower pelvis is generally the larger.

Up to a year ago, 181 cases of complete unilateral duplication, and 133 cases of incomplete unilateral duplication had been reported.

There is a general law that an abnormal organ is more susceptible to pathological conditions than a normal organ.

In 51,504 autopsy records Botez found the frequency of horse-shoe kidney to be one in 715, while in a series of 1,000 kidney operations the proportion was one in 143, or five times as great.

Much has been written upon the embryological origin. It is generally considered that there are three general types of excretory organs, pronephros-mesonephros and metanephros. The first two are temporary only, and the third becomes the permanent kidney. The pronephros becomes atrophied before the embryo becomes the length of 5 mm. Its duct persists to form the Wolffian duct.

The excretory duct of the meso-nephros or the Wolffian body also undergoes atrophy in the human embryo. Its duct persists as the vas deferens in the male and as Gartner's duct in the female.

The meta-nephros appears first as a budding from the lower end of the Wolffian duct. This bud later forms the ureter, pelvis, calycles, and collecting tubules (the efferent apparatus) while the secretory portion of the kidney is derived from a mass of mesodermal cells forming the so-called meta-nephrogenic tissue originating from the caudal portion of the nephrogenic cord.

About the 8 mm. stage of embryonic life, the meta-nephros bud splits into upper and lower divisions, the first evidence of the calyces.

The formation of incomplete double ureter is according to most authors accounted for, by a premature bifurcation of the tip of the ureteral bud. The split extending down the ureteral stock instead of being confined to the tip. Complete double ureter is said to result from separate outbuddings from the Wolffian duct. The Wolffian duct by splitting gives origin to the Muellerian duct.

In the male the lower portion of the Wolffian duct becomes the vas deferens and prostate, and the Muellerian duct atrophies. In the female the Muellerian forms the uterus, ovaries and tubes, and the lower part of the Wolffian duct atrophies.

Double ureter and double kidney may arise from persistence of those ducts which normally atrophy.

Figure 1.

CASE REPORT

Mrs. D. E., referred by Dr. E. W. Miller on January 16, 1924.

Age 34, married. One child 3 years old. One miscarriage (twin); first pregnancy.

F. H. Father died in accident. Mother living and well, age 53. No sisters or brothers (patient a seven month child).

P. H. Had measles during childhood. Menstruated at 17 years, very painful and very irregular, three to four months. Had appendix removed at 23 years. After this menstruation became less painful and more regular.

The following year she had a great deal of trouble with stomach, vomiting, and pain in region of stomach and right upper quadrant. (Ask Dr. Miller, about operation at this time.) Cholecystomy.

After this, patient married, had one miscarriage, twins, and one child. The child was born three years ago.

As long as patient can remember she has had a dull ache in left upper abdominal quadrant. This ache in-

creased during pregnancy, and when lifting. The ache and dull feeling have been greater and more persistent since the child was born. Sometimes there was a urinary frequency, other times not. Sometimes, nocturia twice, other times not at all. Diurnal—occasionally four to five times in the forenoon. Has had some burning on urination.

Before the child was born the patient did not have any backaches, since then has had considerable backache. During the last two or three years has had sore throat. Tonsils were bad and removed by Dr. Messmer in November, 1923.

Cystoscopy: Urethra normal. Bladder capacity normal. Internal sphincter normal. Trigone normal. Right ureteral orifice normal. On the left side, one sees the left ureteral orifice in its usual position, and of normal appearance. About one-half inch outward and above in the ureteric ridge, one sees a second ureteral orifice, which is also normal in appearance.

A No. 5 ureteral catheter was passed up to the right kidney without meeting any obstruction. Catheter flow normal.

On the left side, two No. 5 shadowgraph ureteral catheters were passed through the two ureteral orifices on this side. The catheters did not meet with any obstruction. Catheter flow normal.

Intravenous indigo carmine kidney functional test: The dye appeared on the right side in three minutes, concentration was good. On the left side the dye appeared from the catheter in upper left ureter in three minutes, and from the catheter in lower left ureter in four minutes. Concentration was good in each specimen.

Bladder specimen: Negative chemically, except that this was very highly acid in reaction. Microscopically —negative for pus, bacteria and red blood cells. It contained an occasional uric acid crystal, and a few bladder epithelia. Right kidney specimen was negative, except for a few red blood cells, and epithelia, which were no doubt due to or produced by the catheter.

The two catheter specimens from the left side were also negative, except for a few red blood cells and epithelia, which were also produced by the catheter, for the bladder specimen did not contain these elements.

A pyelogram was made of the left kidney pelves, using a 10 per cent solution of sodium iodide.

The case was sent back to Dr. Miller for a barium meal to ascertain condition of bowel and stomach.

The barium examination showed a ptosis of stomach and large bowel. The patient was fitted with an abdominal support that raised the bowel and stomach and increased the intra-abdominal tension. This increase of intra-abdominal tension also gave support to the left kidney and patient has been very comfortable since.

Osteo-Sarcoma Treated With X-Rays; Case Report

BY H. C. SCHUMM, M.D., AND H. R. FOERSTER, M.D.
Milwaukee

G. B., a white farmer, forty-five years of age, with a previously negative medical history, presented himself to Drs. Gaenslen and Schumm on Nov. 5, 1923, because of pain in the right hip causing physical disability and requiring the use of a crutch. The symptoms developed gradually, beginning two years previously, without history of trauma, with a sense of stiffness in the right hip joint observed especially on arising in the morning. Tenderness and pain in this region developed gradually, with radiation of pain to the small of the back and along the posterior right thigh to the knee as the symptoms became more severe. A limp developed and after the first year he found it necessary to use a cane and finally a crutch. The patient was treated for sciatica for a time without relief. Finally he became subject to severe cramp-like pains in the right calf, chiefly at night, and severe pain in the right hip joint when bearing weight on that side. The history was otherwise negative.

PHYSICAL EXAMINATION

The patient was a well developed adult male, apparently in good health. He presented a pronounced limp on the right side, and examination showed a swelling in the right gluteal region, with superficial inflammation, a divergence of the gluteal fold and cleft from the normal and slight lumbar muscle spasm. There was no tenderness over the hips and no pain on lateral compression of the trochanters or on jarring the heels. There was slight tenderness of the mass in the right gluteal area, associated with local heat, and exquisite tenderness over the right sacro-iliac joint. There was a large fluctuating mass in the right iliac fossa. Compression of the iliac crests caused marked pain over the right sacro-iliac joint. The cutaneous and tendon reflexes were normal, excepting for absence of the right achilles reflex. The examination was otherwise negative. The provisional diagnosis was tuberculosis of the right sacro-iliac joint.

Aspiration of the right iliac mass on Nov. 9, 1925, yielded only a small amount of dark blood, an exploratory incision was therefore made and a small amount of friable, semi-solid tissue was removed. Dr. Thalhimer, Columbia Hospital, reported a histologic diagnosis of mixed round cell and giant cell sarcoma.

Figure I.

Film No. 3330. Nov. 5, 1923. Showing iliac tumor with destruction and rarefaction of bone and pathologic fracture.

Radiographs showed a very marked destruction of the right ilium, leaving a rim of bone around the crest of the ilium about three-fourths of an inch to one inch wide, and a fracture line extending from the middle of the crest into the eroded area.

TREATMENT AND PROGRESS

On Nov. 15, 1923, the patient was referred to Drs. O. H. and H. R. Foerster for x-ray treatments. A series of three x-ray treatments were given on three successive days, through three areas so as to thoroughly irradiate the entire right sacro-iliac and ilio-femoral areas. A dosage just short of that producing a cutaneous erythema was given through each area, employing 150,000 volts and 5 milliamperes of current and a filtration of one-half millimeter of copper. Four more x-ray treatments were given within the first month of treatment and when further radiographs were made on Jan. 23, 1924, there was less evidence of the disease and indications of new bone formation. The skin over the treated areas was heavily pigmented, and the tender, inflammatory masses in the right iliac fossa and right gluteal area had entirely disappeared. He walked with a pronounced limp, and used a cane. When examined on April 28, 1924, he was feeling fine, sleeping well, absolutely free from pain, and weighing more than he had ever weighed. He walked with only a moderate limp, could hop on the right foot and did not need a cane. During the next four months seven additional x-ray treatments were carried out and on

Figure II.

Film No. 4029. March 17, 1925. Showing new bone production replacing tumor.

July first he walked easily without a cane and was free from all subjective and objective symptoms. X-ray examination for evidences of disease was negative, but a final x-ray treatment was given on Aug. 19, 1924. Examination on March 17, 1925, was negative, and no treatment was carried out.

On Sept. 15, 1925, the patient returned, presenting a tumor attached to the right scapula and measuring 10x5x2 cm. This condition had developed gradually during the course of several months and first manifested itself by rheumatoid pains. Dr. Gaenslen reported that the radiograph showed an area of rarefaction at the lower angle of the right scapula with a tumor-like shadow breaking through the cortex with evidence of bone outside the cortex. The iliac area was negative to x-ray and clinical examination. The right scapular area was intensively treated with heavily filtered high voltage x-rays. The mediastinum, spine and pulmonary areas were also intensively treated, five treatments being given between Sept. 15th and Oct. 29th. One treatment was given to the right upper thigh and ischial region because of symptoms referable to these regions, though the radiographs were negative. Examination on Oct. 1st showed no palpable evidence of the scapular tumor and when the patient was last treated on Oct. 29, 1925, he was asymptomatic and showed normal hip movements. He was not seen again, but a letter of inquiry in April, 1926, disclosed that he was "confined to bed with a broken leg" and had apparently been ill with a recurrent sarcoma for several months. Death occurred on July 10, 1926.

CONCLUSIONS

In this instance a patient crippled by a painful, inoperable, advanced osseous malignancy was rendered symptom free and returned to usefulness and apparent health within nine weeks by x-ray treatments entailing no risk to life and no hospitalization. A recurrent malignancy in a different locality, also inoperable, and occurring almost two years later, was also apparently overcome, within six weeks. Though the patient eventually succumbed to the disease two years and eight months after he was first placed under x-ray treatment most of that added span of life was enjoyed in apparent good health and happiness with his family and among his friends.

Whether additional treatment might have resulted in an appreciable further prolongation of useful life is conjectural, considering the histologic type of malignancy in this case. It is to be hoped, however, that the presentation of this case has served to indicate the possibilities of the x-ray in the alleviation of pain and disability and for the prolongation of life in cases of incurable, inoperable, deep-seated sarcoma.

Calcified Brain Tumor; Case Report

BY S. BAUMGARTEN, M.D.
Seelman Laboratories, Milwaukee

Miss A. G., 30 years of age, has been referred to our laboratory for radiological examination of the head. Her chief complaints were headache, vomiting with no relation to meals, diminished vision.

The x-ray examination: The cranium is of the mesocephalic type. The thickness of the skull is about 4 mm. The Pacchionian grooves are deepened. The dorsum sellae is thin and is bent forward. Sella is markedly eroded. The erosion is of such a nature, that the posterior wall of the sphenoidal sinus is projected into the area of the sella. In the posterior cranial fossa to the right from the middle line there is a shadow of a bony appearance about 5 cm. in diameter, circular in shape, irregular in outline. The density of this shadow is not homogenous.

Diagnosis: Calcified brain tumor (probably glioma) in the posterior cranial fossa with markedly increased intracranial pressure.

Figure I.

Figure II.

Hydronephrosis; Case Report

BY W. C. STEWART, M.D., GENTZ PERRY, M.D., AND ALEXANDER SCHLAPIK, M.D.
Kenosha

We report the following case not because of its rarity but because it well illustrates a very common type of cases that have in the past, suffered not only a similar experience to that of the patient reported but unfortunately many of these cases have also been subjected to other serious and unnecessary operative procedures which, instead of improving the patient's condition or relieving their symptoms, were in reality very detrimental to the patient's health and future welfare. Two years ago, in an article on "Hydronephrosis," Dr. B. H. Nichols, roentgenologist of the Crile Clinic, printed in the January, 1924, issue of "The American Journal of Roentgenology and Radium Therapy" on pages 25-35, stated, among other things, the following: "In our clinic a study of the histories of cases of hydronephrosis shows that in more than 30 per cent a previous operation had been performed for cholelithiasis or appendicitis without subsequent relief of the symptoms. Such a simulation of symptoms in appendicitis, gall bladder disease and right-sided hydronephrosis indicates clearly the importance of pyelography in the determination of the differential diagnosis."

Dr. Cabot has also emphasized the necessity of a differential diagnosis by means of pyelography in cases where abdominal pains, especially right sided pains, need to be carefully studied and their origin positively differentiated before treatment is begun and especially before resorting to any operative treatment.

CASE REPORT

On April 15, 1926, Dr. Stewart was called to see Mrs. G., who was suffering from a severe pain in region of right upper abdominal quadrant about 2 inches below and 2½ inches to the right of ensiform cartilage. Nausea and vomiting were also present. A hypodermic of morphine gr. ¼ was necessary to relieve pain. She also complained of a slight intermittent pain in uterus, simulating labor pains. (History and examination proved patient to be pregnant about 6½ months.) The pain in region of uterus became more severe which resulted in a miscarriage of apparently normal twins of about 6½ months development.

Dr. Stewart subsequently obtained the following history: F. H., negative as to present trouble; P. H., usual diseases of childhood. In 1923 patient had a slight attack of pain in region of right upper abdominal quadrant which was thought to be appendicitis. Menstrual history: Began age of 14; regular, slight dysmenorrhea. Marital history: Age 32, married 9 years, mother of six children, four living, two dead (twins, still birth).

About four weeks after the miscarriage, Dr. Stewart was called to see this patient who was again suffering from a similar attack. A hypodermic of morphine gr. ¼ was necessary which only partially alleviated the patient's suffering. Because of the fact that patient noticed a frequency of and an increased amount of urine voided immediately following attacks, it was explained to the patient and her husband the need of a careful differential diagnosis of this case before undertaking any radical steps to treat her condition, advising that a thorough x-ray examination would be the most practical procedure and emphasized the fact that this x-ray examination should be done by an experienced and reliable roentgenologist.

July 12, 1926, Mrs. G. and husband came to Dr. Perry's office with a note from Dr. Stewart requesting such x-ray examinations as deemed best to clear up a positive differential diagnosis of her conditions. In this note Dr. Stewart briefly outlined the patient's past history and symptoms as a guidance in x-ray examinations. Mention was made of the manner in which Dr. Stewart introduced his patient and the way in which he requested conduct of examinations because it is believed that this is the ideal way that the general surgeon or general

Figure I.

practitioner of medicine should use in referring their patients to the roentgenologist.

Placing the patient in a supine position upon Bucky Diaphragm and using a 14 x 17 film, in double intensifying screen cassette, there was made the film shown in Fig. 1. Interpretation of this film was as follows: "Scoliosis of lumbar spine toward patient's left. All of lumbar vertebrae were normal in size and outline—no bone pathology detected. Left kidney normal in form, size and position. Right kidney increased in size, especially its transverse diameter, abnormal in outline and lower than normal in position. Appearance of right kidney could be caused by (a) hypernephroma, (b) cystic kidney, (c) hydronephrosis, (d) pyonephrosis, or possibly, by (e) tubercular kidney. No appearance of renal calculus, nor of any urinary calculus can be detected on films made. It is advised that careful study of kidneys be made by urologist to complete positive diagnosis of pathology of right kidney."

In conjunction with above, two 8 x 10 films were made with patient in prone position on Bucky Diaphragm of gall bladder area. These did not show any pathology. The follow-up procedures with tetraiodophenolphthalein were not used because it was deemed advisable to complete the positive differential diagnosis of right kidney conditions first.

July 14, 1926, Mrs. G. was referred to Dr. Schlapik with information as above outlined. Cystoscopic examination showed:

Figure II.

1. Bladder capacity 200 c.c. and appearance of slight cystitis.

2. Left x-ray ureteral catheter passed freely to pelvis of kidney. Right ureteral catheter met with obstruction at 12 cm. but was able to pass with manipulation though not as far as left catheter.

3. Rapid flow from right ureter, indicating retention of urine on right side.

4. Function: Phenolphthalein 3 minutes on left side, 3½ minutes on right side.

5. Injection of 20 c.c. of a 15% sodium bromide solution through right ureteral catheter for pyelogram. Injection produced pain in similar location and type to her former attacks though pain was not so severe as many of her previous attacks has been. See Fig. II.

6. Ureterogram then made, injecting while withdrawing ureter.

Pyelogram and ureterogram show:

a. Stricture of right ureter at brim of pelvis.

b. Marked dilatation of ureter proximal to stricture.

c. Kink of ureter near pelvis junction of kidney and ptosis of right kidney.

d. Hydronephrosis of plus two degrees.

TREATMENT

A. Kidney support by means of belt and kidney pad.

B. Gradual dilation of right ureter by passage of catheters of increased size at intervals separated by sufficient time to prevent ureteral irritation.

Patient has had complete relief from all former symptoms and trouble since first ureteral catheterization, and by means of treatment outlined will doubtless be restored to health and comfort and avoid surgical operation.

SHOREWOOD HOSPITAL

The opening of the Shorewood Hospital for medical cases only is announced. This hospital is located at the corner of Prospect and Stratford Court, adjacent to the Riverside Sanitarium, and under the same management. It is designed particularly for medical cases and those requiring sanitarium hospital care. The hospital is open to the medical profession and it seems that such a purely medical institution meets a community need.

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B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

THE FUTURE OF RADIOLOGY

I KNOW of no way to foretell the future of radiology except to examine its past. To the younger generation of physicians and surgeons it is almost impossible to recognize what radiology has done for the medical profession. They may grasp its importance if they will consider what the world today would be without motor transportation. The older generation of men fully realize the great step which modern diagnosis and therapy has taken, due to the discovery and introduction of the science of roentgenology. Probably not since the days of Pasteur has medical science made such great progress.

Based upon such a sound scientific footing, handmaiden to every department of medicine, offering to the relief of cancerous patients the greatest hope of the day, useful in everyday practice as no other diagnostic or remedial agency—how can the future of radiology be anything except bright? Radiology has already received unmeasured recognition from medical colleges, hospitals, and practicing physicians and surgeons, and from research workers enormous credit for the advancement it has made.

E. W. Rowe, M.D.,
President-Elect, Radiological Society of North America.

THE RECENT TREND OF PUERPERAL MORTALITY

THE always admirable statistical bulletin of the Metropolitan Life Insurance Company for July, 1926, prints an editorial on puerperal mortality which contains an implied challenge to the medical profession. We reprint it here together with a "response" solicited from one of the members of the State Society.

"During the past decade there has occurred a wide extension of nursing and of other measures directed toward the prevention of the serious and often fatal complications of the puerperal state. Public and private agencies have endeavored to provide instruction and supervision for pregnant women, increasingly stringent regulations of midwifery have been instituted, hospital service in confinement has been much improved and made widely available, and post-natal care has been provided through public health nursing agencies working in the home. It is of interest, therefore, to examine the Census Bureau's records of the mortality from abnormalities associated with childbearing for an area of the United States where much of the admitted improvement in maternity service has taken place during the past ten years.

"There seems to have been a slight increase in the deathrate for puerperal conditions reckoned against births in a constant area. This is clear from a comparison of the rates for the two periods 1915-1917 and 1921-1923. The deathrates for puerperal sepsis and puerperal eclampsia have remained unchanged. These two conditions account for more than one-half of the mortality connected with childbearing. Most of the preventive effort of agencies for maternal care has been directed at these two conditions.

"Some improvement in the mortality figures has been observed in rural districts of these nine states. But here we have to consider the effect of improvement in birth registration. An increase in the proportion of births registered would tend to decrease puerperal mortality rates based upon births.

"The fact that there has been no significant improvement in maternal mortality rates during the period under review should provoke inquiry. What could have been expected of the maternity work which was instituted with such fervor and zeal ten years ago? Was it founded upon sound principles, were its aims realizable, and was there a programme sufficiently comprehensive to affect the vast number of maternity cases which occur annually in the area under survey? Or, have new factors intervened to offset the work of boards of health and of private agencies? Has the increased proportion of hospitalized cases been accompanied by more septic complications? Whatever be the answers to these and other questions which arise, it is clear that over the past decade little if any impression seems to have been made upon the risk of death in childbearing."

Ten years ago the writer investigated the question of Puerperal Mortality and found that so far as could be determined by a statistical study there has been little or no improvement during the previous half century. The responsibility for this deplorable lack of improvement must be shared by the medical colleges, the medical profession and the general public. All have been more or less indifferent to the risks of reproduction.

The general practitioner or family physician has largely replaced the midwife in most parts of the United States, and he is today in charge of the average woman during this important function. The present trend of puerperal mortality cannot be charged to the midwife except perhaps in some southern states. If the care of the obstetric patient by the average physician is inadequate it merely reflects the poor training he received while a medical student. Medical faculties have long

talked about the lack of facilities and time for the proper instruction in obstetrics but very little has been done to improve the situation.

Thus, for example, in the establishment of clinical teaching at the University of Wisconsin the major subjects have been made medicine and surgery. In charge of each of these branches men have been placed on the full service basis at regular academic salaries. Obstetrics and gynecology have been treated as one of the specialties each of which has been placed for the present in charge of men on that part time basis at relatively small salaries. The announced aim of the school is to teach these specialties from the point of view of the general practitioner. There are not, however, at the present time adequate facilities there for teaching students as much obstetrics and gynecology as one preparing for general practice should be taught. This is in part compensated by sending all the fourth year students to Chicago for obstetrical work and by such obstetrical training as may be obtained during the three months' extern service of the fourth year. So long, however, as obstetrics is to be as important a part of the duties of the general practitioner as it is at present, and the pelvic conditions of women continue to form so important a field for correct diagnosis, in the opinion of the writer, obstetrics and gynecology should form a major subject in the clinical curriculum and should be placed on the same full service basis as are medicine and surgery. In this way only can adequate undergraduate instruction in the important field be developed.

Medical colleges are at fault in the type of clinical material which has been furnished. So long as students get the major portion of their clinical experience by delivering a few multiparae under questionable conditions in a tenement, they will go into practice without fully realizing the absolute need of an aseptic technic in obstetrics. It is too much to expect that a physician will practice better technic than he was taught in college.

The family physician is the obstetrician of today and he may at any time have to meet an obstetrical emergency of major importance under conditions which would appall the specialist who works only in a well equipped maternity. So long as he is inadequately trained in the common emergencies of childbirth, how can we expect any improvement in puerperal mortality?

The general public are somewhat to blame for present conditions because of their indifference to the rather high morbidity and mortality of reproduction. Let them learn that obstetrical accidents will sometimes happen in the hands of the most skilled, but that a large percentage of the bad results are due to ignorance and the lack of surgical cleanliness; that most of the ills which follow childbirth are due to poor obstetrical care and are unnecessary, and they will then demand the same skilled care in childbirth that they demand when they undergo a surgical operation. When the general public demand better obstetrics it is probable that medical colleges will find it financially possible to afford more adequate clinical teaching.

TUBERCULOSIS DEATH RATE

THE startling and unforeseen decline in the tuberculosis death rate which has occurred in the past two decades has brought out much study and speculation on the part of real and "near" scientists. It is a phenomenon manifesting so many complexities that no single simple explanation has yet been advanced which is scientifically satisfactory.

Krause has devoted editorials in two recent numbers of the American Review of Tuberculosis to analyses and philosophic discussion of the subject. In one, he quite satisfactorily sets aside the 1918 influenza epidemic as the sole, or probably most important, factor which most profoundly affected the decline which occurred at that time. This because the rate continued markedly downward since that factor ceased to operate.

In the other editorial referred to, he discusses the very interesting New York State and New York City mortality statistics. Here the large city rate is declining much more rapidly than that of the rural and smaller-city portion of the state. A generally similar situation exists in Wisconsin, inasmuch as in recent years, the Milwaukee tuberculosis death rate has been declining more rapidly than that of the rest of the state. Indeed, it now appears that a few years hence, Milwaukee will have a lower rate than the more rural sections unless something is done (or something happens), better to preserve the rural population.—*H. E. D.*

THE PRESIDENT'S PAGE

Joseph F. Saint

A SUGGESTION

The large attendance of delegates at the Madison meeting of the State Medical Society was most gratifying. The interest shown by the delegates in matters affecting the interests of the Society and its relation to the public is an indication that the members of the profession are beginning to realize the importance of its problems. In this connection, the address of President Frank is interesting and suggestive. While we may not agree with some of the suggestions made, it should be of interest because it presents the attitude of a group of laymen toward medicine. The address at least deserves a careful reading and thoughtful consideration.

Each delegate should be expected to give his county society at its first meeting a report of the proceedings of the House of Delegates. In order to enable the delegates to do this, the Executive Secretary has furnished each delegate and each county society officer a typewritten synopsis of the proceedings of the House of Delegates and of the Council. This will furnish the basis of the report which the delegate should be expected to give to his county society.

The House of Delegates officially indorsed the periodic examination of apparently healthy persons and pledged the Society's best efforts to the furtherance of the program for carrying out this work. It has been suggested that each county medical society early in the year hold at least one meeting devoted to this program. The work can be taken up with a demonstration of such a typical examination as outlined in the form for recording health examinations, published in the "Outline for the Conduct of Periodic Health Examinations of Apparently Healthy Persons." The outline itself contains a great deal of most valuable information on history taking and physical examination. One or two meetings devoted to a study of this manual would be time well spent by any group of medical men. Leaders for the evening can be appointed from the membership or outside assistance secured if easily available. The latter, however, is not necessary, perhaps not even desirable. A careful and critical study of this little manual cannot fail to make every medical man a better examiner and, therefore, better qualified to give his clientele the kind of service they are coming to expect and demand.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

ASHLAND-BAYFIELD-IRON

Dr. C. J. Smiles, Ashland, was elected president of the Ashland-Bayfield-Iron County Medical Society at a recent meeting held at Pure Air Sanatorium, near Bayfield. Dr. L. G. Johnson, Iron River, was elected vice-president, while Dr. M. L. Young, was elected secretary-treasurer.

The members of the tri-county organization enjoyed a luncheon at the sanatorium which was followed by the annual business meeting. Dr. W. E. Fawcett, superintendent of the sanatorium, read a paper on "Pneumo-Thorax", and Dr. Alrick Hertzman, associate professor of Biological Science at the University of Michigan, Ann Arbor, gave a discussion on Research Work in Connection with Respiration.—M. L. Y.

COLUMBIA

The members of the Columbia County Medical Society met at the Hotel Emder, Portage, on Wednesday, September 1st. A business meeting followed the noon luncheon at the hotel. The proposed increase in State Society dues and the changes in the constitution and by-laws were thoroughly discussed and unanimously approved by the members present.—H. E. G.

MARINETTE-FLORENCE

The September meeting of the Martinette-Florence County Medical Society was held on Thursday evening, September 23rd, at the Cholette House, Peshtigo. Following a chicken dinner, Dr. Ralph Carter, Green Bay, presented a paper on "Back Injuries". Dr. Leslie Redelings, San Diego, Calif., gave a case report on "Heart Block", illustrated with lantern slides, and Dr. G. R. Duer, Marinette, submitted his report as delegate to the State Society. Dr. T. J. Redelings, councilor for the Eighth District, also spoke on the annual meeting at Madison.—M. D. B.

VERNON

The present officers of the Vernon County Medical Society were re-elected for the year 1927 at the August meeting of the society. They include: President, Dr. H. J. Suttle, Viroqua, and Secretary-Treasurer, Dr. Wm. H. Remer, of Chaseburg. Instructive papers were given by Drs. Edward Evans, La Crosse; R. C. Blankinship and R. C. Buerki, of Madison, and G. J. Egan, La Crosse.—W. H. R.

CENTRAL WISCONSIN SOCIETY OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY

The members of the Central Wisconsin Society of Ophthalmology and Oto-Laryngology met at Oshkosh on September 28th. The following program was presented: At two o'clock, business session, Hotel Athearn; two-thirty, scientific session: "Rhinological Phases of Bronchial Asthma," by Burton Haseltine, M.D., Chicago; Discussion by John E. Guy, M.D., Milwaukee. Following the 6:30 dinner, Dr. Haseltine spoke on "The General Problem of Bronchial Asthma;" A. W. LaForge, M.D., Chicago, on "The Internist's Problem;" and Ralph Kuhns, M.D., Chicago, on "The Problem of the Asthmatic Child."

FOURTH COUNCILOR DISTRICT

The members of the Fourth Councilor District Medical Society met at the Grantland Club rooms, Lancaster, on August 31st. The district is composed of the counties of Crawford, Grant, Iowa, La Fayette and Richland. The following papers were read and discussed: "The Relation of the Public to Medicine," by Dr. Wilson Cunningham, Platteville, councilor of the Fourth District; "A Case Report," Dr. Joseph Dean, Madison, vice-president State Board of Health; "Periodic Examinations of the Apparently Healthy," Dr. Joseph F. Smith, Wausau, president of the State Medical Society; "Some Recent Advances in Urological Surgery," Dr. Damon A. Brown, Jackson Clinic, Madison; "A New Field of Work for the State Society," Mr. J. C. Crownhart, secretary, State Medical Society. A banquet was served in the dining hall at 6:30 o'clock, after which a social hour was enjoyed.

Among those present at the meeting were: Drs. E. Kraut, J. C. Doolittle, S. W. Doolittle, J. H. Fowler, Rush Godfrey, H. O. Shockley, S. A. J. Ennis, J. R. Hughes, D. B. Hamilton, T. A. Hagerup, H. D. Ludden, A. D. Brown, Wilson Cunningham, E. H. Spiegelberg, E. C. Howell, M. A. Bailey, T. E. Farrell, W. W. Coon, Philip J. Trentzsch, F. H. Baldwin, and M. B. Glasier. Dr. Joseph F. Smith, Dr. Joseph Dean, Dr. Damon A. Brown and Mr. J. G. Crownhart were guests of the society.—M. B. G.

NINTH COUNCILOR DISTRICT

A joint meeting of the Ninth Councilor District Medical Society and the Marathon County Medical Society was held at Mount View Sanatorium, Wausau, on the afternoon and evening of September 30th. Dr. Oscar Lotz, of the Wisconsin Anti-Tuberculosis Association, Milwaukee, gave a clinic during the afternoon on Tuberculosis, and Dr. William S. Middleton, Wisconsin General Hospital, Madison, presented a paper on the subject of "Pitfalls in the Diagnosis of Pulmonary Tuberculosis." Dinner was served at the sanatorium, after which a paper on "The Mainstays in the Diagnosis of Pulmonary Tuberculosis" was given by Dr. Lotz.

NEWS ITEMS AND PERSONALS

Dr. T. L. Byrd, Milwaukee, has resigned the position of clinical director of the laboratories at the Sacred Heart Sanitarium, and St. Mary's Hill, Milwaukee, to accept the appointment as Jacques Loeb Fellow in Medicine, at the Johns Hopkins Hospital, Baltimore, Md. He will take up his duties at the latter institution on October 1st.

Dr. Elizabeth Comstock and Miss Collette Wiffler of

Arcadia have returned from a motor trip which included the annual meeting of the State Society in Madison and a visit with Dr. Margaret Caldwell at Waukesha.

Dr. Caldwell, who is eighty-one years of age, is the dean of women physicians in Wisconsin. Dr. Comstock reports that Dr. Caldwell is as keenly interested in medical and current general affairs as the youngest in the profession and she carries her advanced years with strength and grace.

Three years ago Dr. Comstock returned to her native home in Arcadia after twenty-one years of active practice in New York City, during which she was a member of the staff of the New York Infirmary for Women and Children.

The New York Infirmary was started in 1853 by Drs. Elizabeth and Emily Blackwell in the days when women doctors were frowned upon. It has struggled up through all the years and has been a place where sick and indigent women and children could be treated by women doctors.

Dr. Ezra Rogers, who has been the third of his family to establish a practice in Hartford, has associated himself with Dr. H. D. Sykes at 1225 Wells Building, Milwaukee.

Dr. G. J. Juckem, physician and surgeon, and Dr. E. J. Mueller, dentist, have opened joint offices in the Klemme Building, Sheboygan. Dr. Juckem is a graduate of the local high school and Marquette University. For the past six years he has been practicing at Howards Grove.

Dr. Mueller is also a graduate of the Sheboygan high school and Marquette University Dental College and has practiced in that city for the past year.

Typhoid fever, diphtheria, and scarlet fever were virtually the only communicable diseases in Wisconsin which did not produce an increase in deaths during the second quarter of 1926 as compared with the corresponding period of 1925, according to the State Department of Health.

Diphtheria and scarlet fever, ordinarily quite prevalent at that season of the year, not only showed an actual decline in mortality, but a similar reduction in the number of cases reported.

Figures from the quarterly mortality report of the State Board of Health show that there was a decline from 613 dipththeria cases in April, May and June of 1924, to 487 cases in 1925 and 413 cases in 1926. Diphtheria deaths declined from 43 in the 1924 period to 41 in 1925, and only 26 in 1926.

Dr. A. J. Pullen and daughter, Damaris, of Fond du Lac, returned recently from a two months' trip through Europe. During the trip they visited Paris, Nice, Monte Carlo, Rome, Naples, Florence and Venice, Amsterdam, London and other points. Dr. Pullen visited several hospitals where research was being conducted in children's diseases.

Dr. G. F. Goggins, formerly of Green Bay, has taken over the practice of Dr. A. J. Marquis, deceased, at De Pere.

The report of the Committee on Health and Recreation of the Oshkosh Board of Education recommended the appointment of the following physicians for professional duty in the city schools: Dr. J. M. Conley, Dale school; Dr. J. F. Schneider, Read; Dr. J. F. Stein, Washington; Dr. G. A. Steele, Merrill; Dr. W. A. Wagner, Smith; Dr. J. W. Lockhart, Franklin; Dr. W. P. Wheeler, Lincoln; Dr. H. H. Meusel, Longfellow; Dr. S. M. Kyes, Roosevelt; Dr. H. J. Haubrick, Jefferson; Dr. Burton Clark, Jr., Park.

The duties of the physicians will be to make examinations and to serve as health advisers in the city schools under the direction of the health department. It was recommended also that Dr. Lockhart be named as physician for the freshman and sophomore classes of the high school, beginning January 1, 1927.

Dr. David M. Gallaher, formerly of Kaukauna, is at present attending post-graduate courses at Chicago and St. Louis, prior to establishing his practice in Appleton about January 1st. Dr. Olin Paul of Madison will occupy Dr. Gallaher's former office suite in the First National Bank Building.

Dr. Vernon A. Chapman, whose practice is confined to the eye, ear, nose and throat, Suite 216 Colby-Abbott Building, Milwaukee, returned to active practice in September. Dr. Chapman had been ill for a period of six months but has now regained his health.

Dr. Lester McGary has been appointed pathologist at the Madison General Hospital. He will succeed Dr. R. McHalback who resigned to accept a position at Pittsburgh, Penn. Dr. McGary was formerly at the Wisconsin General Hospital at Madison.

At a recent meeting of the city council of Hartford, Dr. J. G. Hoffman was appointed health officer of the city in place of Dr. E. H. Rogers, whose resignation from that position was accepted at the same meeting. Dr. Rogers held the post of health officer for several years prior to his departure for Milwaukee where he is now practicing.

Dr. Robert B. Montgomery, son of Dr. R. C. Montgomery, Madison, has taken over the practice of Dr. W. J. Miller at La Valle. Dr. Montgomery served his internship at Madison General Hospital and for the past year has been connected with the University Clinic. Dr. and Mrs. Miller will leave soon for California to spend the winter.

Dr. H. B. Sears, Oshkosh, addressed the school board convention at Antigo on Tuesday, September 14th. He spoke of methods and means whereby contagious diseases may be controlled in the schools, and explained the importance of attention to conditions which are the primary causes of illness.

Dr. Charles Sutherland and family of Janesville returned some time ago after touring the east for three weeks and visiting every state in New England. They

drove through Cleveland, across New York state, and north, crossing Lake Champlain by ferry, then to Hanover, N. H., where they visited Dartmouth College. They proceeded to Boston along the Atlantic coast and visited Exeter, Andover and Harvard on the way. Returning along Long Island Sound, they visited Brown University and Yale, then Cornell at Ithaca, N. Y.

Alumni members of Phi Rho Sigma, national professional medical fraternity, organized on September 17th at Madison, with Dr. I. G. Ellis of the Wisconsin General Hospital as president; Dr. C. K. Schubert, Jackson Clinic, secretary, and Dr. R. L. McIntosh, treasurer. A local chapter of the fraternity is being planned by the group.

Returning after an absence of seven years, Dr. M. A. Bernstein has opened an office at Kenosha. Dr. Bernstein is planning to retain his associations in medical work in Chicago and will maintain his office in Kenosha, limiting his practice to surgery. The doctor recently returned from a trip through England, France, Italy and Switzerland where he studied and worked in the various clinics.

Dr. John A. Junck, Sheboygan, having fully recovered from his eight weeks' illness, has resumed his practice at his office in the Security National Bank Building.

Dr. Franz Pfister, Milwaukee, returned from Europe recently and is back in his office at 1404 Majestic Building after an absence of several months.

Announcement has been made of the appointment of Dr. F. W. Hammond, Manitowoc, as local surgeon of the Chicago and North Western. Dr. Hammond will be assistant to Dr. J. F. Pritchard who is a chief of the division and who has been the local physician for the railroad since 1873, a term of fifty-three years.

Dr. Stanley J. Briggs and Dr. C. R. Mooney, Madison, were reappointed to the eye, ear, nose and throat nad dental departments of the Board of Health at the board meeting on September 15th.

Dr. C. C. Del Marcelle, Green Bay, who is receiving treatment at the Massachusetts General Hospital at Boston, is very hopeful of regaining the use of his legs, according to recent reports.

Dr. Louis F. Jermain, dean of the Marquette University School of Medicine for the last fourteen years, tendered his resignation to the board of trustees at a meeting recently. A desire to spend more time with his family and a growing private practice prompted his retirement. Dr. Jermain was immediately elected Dean Emeritus.

Dr. C. M. Griswold, Clintonville, has moved to Oostburg where he will continue his private practice. Dr. Griswold opened his practice at Clintonville following discharge from medical service in 1919. He had just completed his second term as health officer when he decided to move to Oostburg, which is near his old home at Hingham, Sheboygan county. While in war service, Dr. Griswold served both in the United States and France.

Dr. Gilbert E. Seaman has resigned as chairman of the Medical Advisory Board of the United States Veterans' Bureau and will devote his whole time to his practice and to the medical work of the Riverside Sanitarium and Shorewood Hospital, with which he has long been connected.

Dr. George H. Robbins, Madison, formerly at 22 North Carroll Street, has opened new offices at 607 First Central Bank Building, Madison.

DEATHS

Dr. E. H. Rogers, Stevens Point, and his son Charles, were instantly killed near River Falls when their car crashed through a bridge railing and landed upside down on a rocky creek bottom. Dr. Rogers was born at Oronoco, Minn., on August 10, 1866, and was graduated from the Eclectic Medical Institute, Cincinnati, in 1889. Subsequent to his graduation he engaged in the practice of medicine with his father at Chippewa Falls, where he remained for about a year. The doctor's next location was at Bloomer, after which he took a post-graduate course in Chicago and came to Stevens Point in the year 1901.

Dr. Rogers is a past president of the Portage County Medical Society and the Ninth Councilor District Medical Society. At the time of death he was president of St. Michael's hospital staff and was a member of the State Medical Society of Wisconsin and the American Medical Association.

Six associates with him in the medical profession served as pallbearers. They included: Drs. W. W. Gregory, Wayne F. Cowan, G. H. Lawrence, J. W. Coon, F. A. Marrs and F. A. Southwick. Dr. Rogers is survived by his wife, two sons and a daughter.

Dr. Chresten Olson, Racine, died at the family residence on September 1st following an illness existing over a period of several years. Dr. Olson was born in Denmark in the year 1876 and was graduated from Wisconsin College of Physicians and Surgeons, Milwaukee, in 1909. For seven years he administered to the sick at St. Thomas, N. D. At the end of that time he took post-graduate courses in Chicago and then located at Racine, specializing in the treatment of the eye, ear, nose and throat. Surviving him are his wife, his aged mother, four brothers and two sisters.

Dr. Olson was a member of the Racine County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. M. E. Corbett, Oshkosh, died on September 5th at the Mercy Hospital of that city. Dr. Corbett was born in Buffalo, N. Y., in September, 1857, and studied medicine at the University of New York from which he was graduated in the year 1886. Following graduation from that school, he practiced for some years at Lomira, later coming to Oshkosh. He took post-graduate work at Chicago and at his alma mater in New York. He

went abroad and studied in Vienna for a period of eight months, specializing in surgery. The doctor was the medical adviser for many Oshkosh concerns for a number of years, including the traction company, the public utilities company, the telephone company, and other business concerns.

Dr. Corbett was a member of the Winnebago County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife and two brothers.

Dr. Arthur J. Marquis, De Pere, died on August 25th from the effects of blood poisoning. Dr. Marquis was born in the state of Maine forty-eight years ago and before coming to De Pere practiced at Wausaukee and Kaukauna. The doctor was graduated from the Milwaukee Medical College in 1908 and was licensed in the state of Wisconsin the same year. The deceased man is survived by his wife, two sons and one brother.

Dr. Jesse Y. Potter, New London, died at his home on September 13th following a paralytic stroke. Dr. Potter was born in the year 1865 and was graduated from the University of Illinois College of Medicine, Chicago, in 1899. He was licensed in the state of Wisconsin the same year.

Dr. Potter was a member of the Waupaca County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. J. F. Pember, Janesville, died at his home on September 10th after suffering a stroke of paralysis the preceding afternoon. The physician was at his offices in the Pember-Nuzum clinic Thursday morning and was apparently in fair health until he was stricken shortly after noon. He had not been well for three years but remained active in his practice.

Dr. Pember was born on the family homestead in Johnstown township, December 12, 1857. His primary education was obtained at the district school after which he completed his literary studies at Milton college where he was a student for three years. Choosing the medical profession as one desirable as a life occupation, he began his studies under the direction of Dr. Henry Palmer of Janesville, but subsequently entered the Chicago Medical college from which he was graduated in March, 1883.

Upon his graduation he became house physician and surgeon of Mercy Hospital, Chicago, where he remained the allotted time, one year. He then received the appointment as physician at the State Hospital for the Insane at Oshkosh, where he remained two years. Upon his return to Chicago, he opened an office in that city, but soon after accepted the appointment as physician and surgeon of the Minnesota Granite Company and located at Hinsdale, Minn. He continued with this firm until it retired from business, and in September, 1888, Dr. Pember located in Janesville where he gained the confidence of residents throughout that section of the country.

Dr. Pember was a post-graduate of the University of Berlin, Germany, in 1899; and a post-graduate of the New York Medical college, in eye, ear, nose and throat, in 1901. He has held practically every post of honor within the power of Janesville and Rock county medical organizations to give, and has been prominent in the work of the State Medical Society of Wisconsin, serving as its president at one time. He was a Fellow of the American College of Surgeons, and a Fellow of the American Medical Association, past president of the staff of Mercy Hospital, past president of both the state and county medical societies, and a member of the Interstate Medical Assembly.

For the last thirty-six years he served as medical adviser to the Rock county hospital, and held that position at the time of his death. During the years of the war he was chairman of the board of medical examiners for the Janesville district. He was, at the time of his death and for many years previous, surgeon for this division of the Milwaukee railroad. Mrs. Pember, one son, Dr. Aubrey Humphrey Pember, a member of the Pember-Nuzum Clinic, and one daughter, Mrs. Constance Pember Nuzum, Santa Barbara, Calif., survive him.

Dr. Daniel H. Gregory, De Pere, died suddenly at his home on September 9th. Dr. Gregory came to De Pere from Michigan where he had been located for fifteen years following the completion of a course in medicine at the University of Michigan, Ann Arbor, in 1876. He was born in 1853 near Windsor, Canada.

After establishing his practice in West De Pere, Dr. Gregory served the district as member of the school board for twenty years. He was health commissioner and city physician for ten years. Fellow physicians honored him two years ago with the presidency of the Brown-Kewaunee County Medical Society, and he was attending physician at Hickory Grove Sanatorium for several years.

Dr. Gregory's death is mourned by his wife, a son and a daughter. At the time of his death he was a member of the Brown-Kewaunee County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. Pallbearers, both active and honorary, were chosen from the Brown-Kewaunee County Medical Society.

Those who served actively were: Drs. J. P. Lenfestey and N. M. Kersten of De Pere, Drs. F. L. Crikelair, P. M. Clifford, F. J. Gosin of Green Bay, and Dr. Hittner of Seymour. The honorary pallbearers included: Drs. W. E. Fairfield, R. C. Buchanan, John R. Minahan, Robert E. Minahan, P. R. Minahan, F. M. Harris, H. P. Rhode, C. J. Chloupek, I. E. Levitas, Thomas Oliver, R. M. Burdon, S. F. Rudolf, R. M. Carter, H. A. Folter, A. Charbonneau, W. H. Bartran, J. J. Robb, A. J. McCarey, E. G. Nadeau, of Green Bay, Dr. George F. Goggins of De Pere, Dr. J. L. Shaw, Manitowoc, and Dr. Edward Sawbridge of Stephenson, Michigan. Dr. Frank Gregory of Valders is a brother of the deceased.

CORRESPONDENCE

COMMENDS MEETING

Boscobel, Wis., Sept. 22, 1926.

Mr. Geo. Crownhart, Secy.,
Milwaukee, Wis.

My dear Mr. Crownhart:

The efforts of the secretary and officers of the State Medical Society in making the recent meeting the success that it was are deserving of commendatory recognition, and I wish to contribute these few lines as my expression of appreciation of these efforts.

Very truly yours,

J. C. Betz.

SOCIETY RECORDS

NEW MEMBERS

Perlman, Henry B., Belleville.
De Salvo, Francis, Niagara.
Smedal, S. A., Viroqua.
Orban, Louis, State Hosp. for Insane, Waupun.
Deerhake, W. A., State Hosp. for Insane, Waupun.
Hassall, James C., Oconomowoc Health Resort, Oconomowoc.
Love, Geo. R., Summit Hospital, Oconomowoc.
Reese, William, Dodgeville.

CHANGES IN ADDRESS

Thewalt, W. B., Milwaukee, to Berlin.
Gibson, A. H., Milwaukee, to The Presbyterian Hosp., Chicago.
de Neveu, A. V., Rhinelander, to Emergency Hosp., Milwaukee.
Hall, S. S., 159 Malcolm Ave., Minneapolis, to 3542 Pillsbury Ave., Minneapolis.
Rogers, E. H., Hartford, to 120 Wisconsin St., Milwaukee.
Slaney, J. G., Oshkosh, to National Soldiers' Home, Dayton, Ohio.
Montgomery, R. B., Melrose, to La Valle.
Juster, E. M., New Glarus, to Madison.

Deer hunting will be good in northern Wisconsin this year, according to Elmer S. Hall, state conservation commissioner, who announces there are more deer in the north than at any time in the past ten years. The season will be from December 1st to 10th. The one buck law is in force in Wisconsin and the law allows the killing of one buck over one year old by each licensed hunter.

State Architect Arthur Peabody is drawing plans for the new medical building at the University of Wisconsin. This building will cost over $600,000 and is built out of excess soldier bonus funds. The Wisconsin General Hospital at the University was built out of the same fund. It is planned to have the plans for the new building ready for submission to the university regents early in November.

* * *

Wisconsin has made a profit of more than two million dollars from prohibition, figures announced by L. C. Gunderson, state prohibition commissioner, show.

Receipts from fines, fees, and sale of confiscated alcohol and automobiles, under the state prohibition laws since 1920, have reached a total of $2,713,536. Disbursements were $333,042, leaving a balance of $2,380,494, which went to be expended on state schools.

None of the fines during 1926 have been included in the report.

The receipts of the state prohibition in Wisconsin in 1920 were listed as follows: Fines to Jan. 1, 1926, $2,048,563; permit fees, $184,150; witness fees, $7,108; non-intoxicating beverage license fees, $125,527; sale of seized alcohol, $6; sale of confiscated vehicles, $2,086; fees appropriated, $16,041. The total appropriations $330,000.

* * *

The taxation situation in many of the high school districts in Wisconsin is becoming unbearable and taxes for education will have to be equalized in the state or high school opportunities must be denied to Badger boys and girls in some of the localities, John Callahan, state superintendent of schools, declares in a survey of educational financing problems just made public.

Mr. Callahan points out that with the low taxing valuation in some of the districts now supporting high schools the expenses of the taxpayers is so great that there is danger of a considerable curtailment of educational opportunities in Wisconsin unless some remedy is found.

He urges the need of more state aid for high school support and in this connection presents views as to how the additional money should be raised. He suggests a tax on cigarettes and cosmetics as one plan that might be followed.

"Wisconsin high schools are passing through the most critical period of their existence," Mr. Callahan declares. "For the first time in the history of our state, taxpayers are seriously contemplating some restriction of educational opportunity for those children who do not live in the larger villages and cities. It is to be admitted that neither their thought nor action has, as yet, crystallized into any such definite statement as that made above. Nevertheless, an analysis of local comments on the tax situation of arguments made in the committee rooms of the past legislature, and recently enacted educational laws, leads one who studies the situation to the belief that only a drastic reorganization of our tax laws affecting schools will prevent the reduction of high school opportunity through the elimination of many of our small high schools."

Harry Kleuter, a member of the state dairy and food commission for twenty years, was appointed by Governor John J. Blaine as state dairy and food commissioner for the unexpired term of Mr. Emery. Mr. Emery, after nearly a quarter of a century of service in the dairy and food department, resigned on September 1st to return to the teaching profession at Fort Atkinson. Mr. Kleuter joined the dairy and food commission department twenty years ago as assistant chemist at a salary of $50 a month. At the time of his appointment as dairy and food commissioner he held the position of chief chemist and assistant dairy and food commissioner. The position is for the unexpired term until Feb. 7, 1927.

* * *

With six old Wisconsin trout hatcheries turning 15,000,000 speckled trout into Wisconsin waters a year, eight new hatcheries are being developed by the state conservation commission with an additional capacity of between 6,000,000 and 7,000,000 and prospects for a greatly enlarged production, Elmer S. Hall, state conservation commissioner, announced this week.

* * *

The new community hatcheries given to the state for the raising of trout are located at Westfield, on the Little Brule river in Douglas county, the Crystal Springs hatchery, Langlade county, the Stevens Point, Nekoosa, Marinette and Sparta hatcheries. These fish are sent free for planting in streams on application to the conservation commission. Wisconsin has 7,000 miles of trout streams, practically all of which are expected to be reached with the new peak production of the speckled game fish.

* * *

Sixteen persons were killed and forty-seven persons were injured in the past three months in 74 highway crossings, the state highway commission announces. In sixty-six of these accidents automobiles were involved in which eleven persons were killed and forty-four injured. During the same time there were 154 accidents on steam railroads of Wisconsin at other than at crossings. In these latter accidents 19 persons were killed and 97 were injured. Of these casualties trespassers furnished eight killed and eleven injured.

* * *

The law passed by the last session of the legislature for the state licensing of wholesale dealers in food products was held unconstitutional by the Wisconsin supreme court late in September. The decision is unanimous and the entire law is held invalid. The last legislature enacted a bill providing for the licensing of wholesale dealers in food products. Over 5,000 people in the state would have been affected by the measure.

Before the law became effective an injunction was obtained by George Hickey, Beaver Dam, restraining Edward Nordman, commissioner of markets, from enforcing the law. The law is held unconstitutional on the ground of its lack of definiteness and unjust classifications.

Large Attendance at 85th Anniversary Meeting; Dr. Arthur W. Rogers, Oconomowoc, Elected President for 1927

Dr. Arthur W. Rogers, Oconomowoc, will be the next President of the State Medical Society of Wisconsin and Dr. John J. McGovern, Milwaukee, as President-Elect, will follow Dr. Rogers.

The 85th Anniversary Meeting met an enthusiastic reception on the part of the members in attendance, and registration figures showed it to be the largest meeting to be held outside of Milwaukee. Beginning with the golf tournament on Tuesday noon, every number on the program was given exactly as scheduled with the sole exception of the garden party, cancelled because of rain.

The outstanding features of the meeting were the session in the First Congregational Church for the President's Address, the address by President Glenn Frank of the University of Wisconsin, the exceptional scientific program, and the unusual amount of work transacted by the House of Delegates.

Adopting the new constitution and by-laws, the House of Delegates revised the terms of the councilors so that four shall be elected each year for terms of three years each, instead of two each year for six year terms. The office of President-Elect was created that hereafter the incoming president may have a year's notice that he is to assume the responsibility of leadership of the profession. The new constitution also created the office of Speaker and Vice-Speaker of the House of Delegates and the House elected Dr. Karl W. Doege of Marshfield as Speaker for 1927 and Dr. W. T. Lindsay, Madison, as Vice-Speaker. Following the new constitution, the House elected as councilors: Seventh District, Dr. Edward Evans, La Crosse; Eighth District, Dr. T. J. Redelings, Marinette; Ninth District, Dr. Joseph F. Smith, Wausau; Tenth District, Dr. H. M. Stang, Eau Claire.

In its three sessions the House of Delegates adopted the following major recommendations:

1. Directed a special committee to report to the next session as to whether it would be desirable to establish a system of licensure for hospitals and establish basic requirements.

2. Formally endorsed the periodic examinations of apparently healthy persons by their family physicians

Each session had an attendance of over four hundred. This picture, greatly reduced, was taken by the Photoart House, Madison, on Thursday morning. Copies may be obtained from the photographer at $1.00 each.

and urged county medical societies to make this a subject for a meeting this fall.

3. Directed a special committee to investigate the nursing question and report to the next session.

4. Appropriate $2,000 to the Committee on Public Policy to enable that Committee to present to the next legislature the group opinion of the profession on all questions respecting public health, medical practice and licensure.

5. Specifically directed the Committee to urge:

a. That there be no change in the Basic Science Act.

b. That physicians from foreign countries be required to have first papers before licensure.

c. That conviction and sentence to state prison for criminal abortion shall automatically revoke the physician's license.

d. That the licensure for itinerants be abolished.

e. That salaries for physicians in state employ be left to the discretion of the State Board of Control instead of being fixed by statute.

f. Remodeling of the legislative charter law for county societies.

6. Commended the State Board of Medical Examiners for their announced policy and proceedings to secure law enforcement.

7. Endorsed area test for bovine tuberculosis, as a public health measure.

8. Appropriated $500 that Hygeia might be sent to all members of the legislature and government heads as formerly; $1,000 for a Fourth Annual Lay Issue to be made a supplement to the January number of the Journal; and $2.000 for the continuation and expansion of the weekly press service now supplying 30 dailies and 175 weekly papers with a weekly story on some phase of medicine.

9. Approved a recommendation of the Secretary that Wisconsin send an official delegate to each of our neighboring state meetings for the purpose of securing information as to activities, fields of effort, and service rendered members in such societies. Delegates elected for 1927 are:

Minnesota—H. M. Stang, Eau Claire.
Iowa—Hoyt E. Dearholt, Milwaukee.
Michigan—J. R. Minahan, Green Bay.
Illinois—G. W. Nott, Racine.

10. Approved recommendation of the Secretary that all secretaries of constituent county societies hold a day meeting in Milwaukee on the day preceding the annual meeting of the Council in January and that the State Society reimburse them for one-half their railroad fare. The purpose of this meeting is to discuss county society problems, receive suggestions for work of the State Society, and lay out plans of effort for the year's work.

11. Discussed, but laid over for one year, a proposed amendment which provided that councilors should be elected at district society meetings.

12. Received the resignation of Dr. Rock Sleyster, Wauwatosa, as a Delegate to the American Medical Association. (Dr. Sleyster was recently elected one of nine members of the Board of Trustees of the A. M. A.)

13. Elected as Delegates to the American Medical Association:

Dr. J. M. Dodd, Ashland,
Dr. H. M. Brown, Milwaukee.

14. Elected as Alternates:

Dr. W. E. Bannen, La Crosse,
Dr. F. Gregory Connell, Oshkosh.

15. Selected as place of meeting for 1927—Eau Claire.

16. Voted that the dues for 1927 be $10.00.

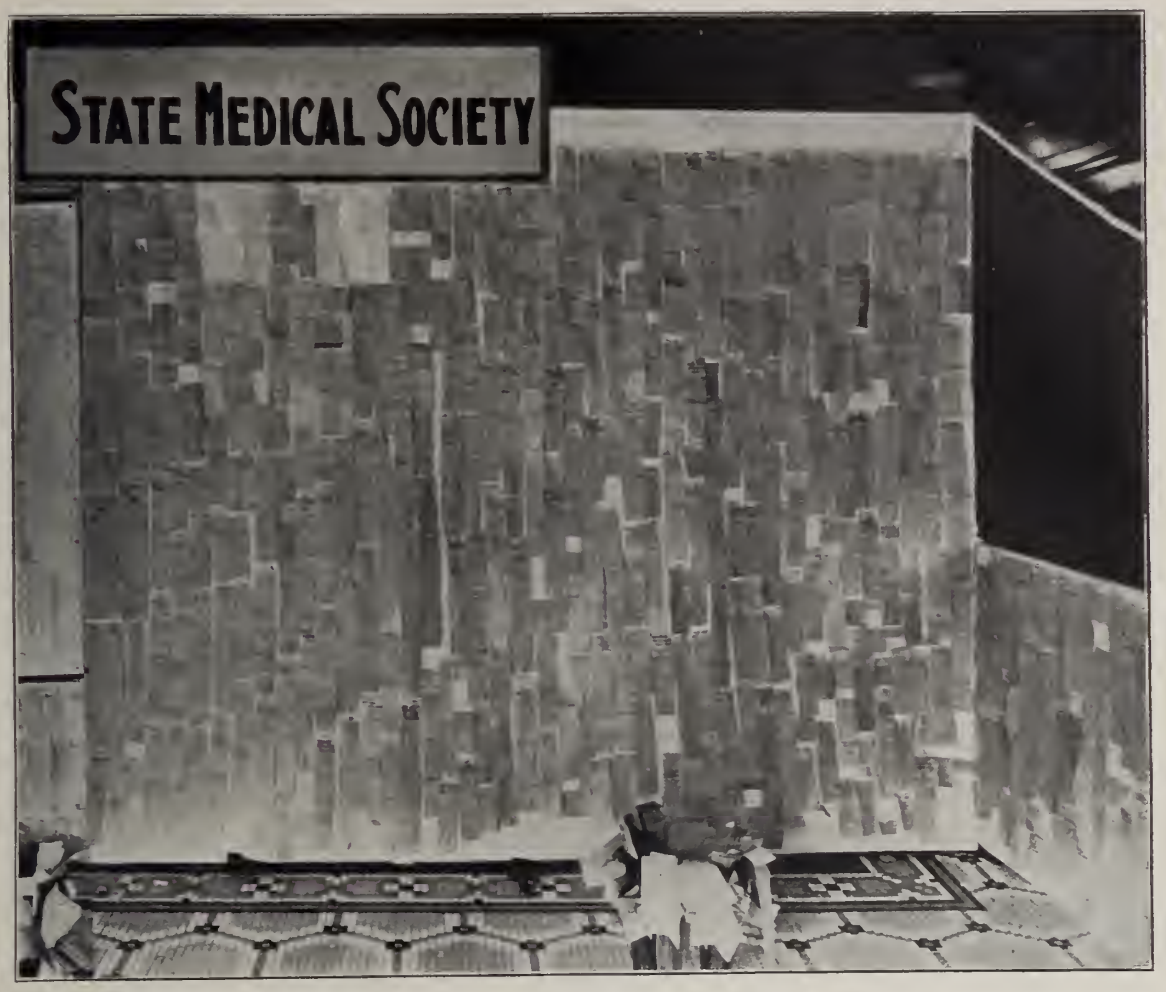
At the opening meeting Dr. Joseph F. Smith emphasized the fact that in the changing order, health departments and physicians had given great

1. The exhibit of clippings from the newly established weekly press service of the State Society attracted the attention of the members at the annual meeting.

attention to prevention of communicable and contagious disease and the treatment and care of the children and young people; but that little or no attention had been given those supposed in the prime of life. Dr. Smith pointed out that this period was in fact the danger period and that the question of preserving health at this time of life was largely a personal one. The President urged periodic examination as the one means of "adding years to life and life to years," emphasizing the immediate necessity for physicians preparing to give such examinations for which increasingly frequent calls would be made in the near future, and urged the public to take advantage of this great service which was available to it through the family physician.

Glenn Frank, President of the University of Wisconsin, pointed out that there was much in common between the industrial revolution of 1875 and the present relationships of the profession and public. He praised the physician who, in his work, blended the art of medicine with the science of medicine. The President declared that now, as never before, the country needed medical statesmanship of the highest order if the next twenty-five years was not to see the individual practitioner eliminated by industrial and state medicine. He urged the profession to educate the public to look to medical science and the family physician for the prevention of disease as well as the cure of disease.

Declaring that the time is near at hand when the people will look more for the care of the health than the cure of disease President Frank stated, "This transformation of the attitude toward doctors and the service of doctors is bound to come. In my judgment, it lies with the doctors themselves to say by which way it shall come. If the medical profession itself does not lead and administer this transformation through organization, it will inevitably be led and administered by industries, insurance companies and states."



2. While the press service has been in operation but eight months, the clippings received were too numerous to be posted in the large booth devoted to the service.

REGISTRATION OF MEMBERS

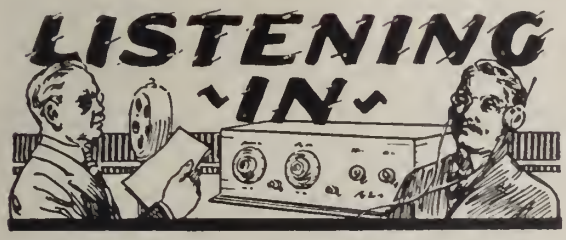
Adams, Geo. F., Kenosha.
Allen, Jessie P., Beloit.
Allen, L. P., Oshkosh.
Allen, C. F., Middleton.
Allen, W. J., Beloit.
Allen, S. C., Waterloo.
Altenhofen, A. R., Milwaukee.
Amundson, K. K., Cambridge.
Anderson, N. P., La Crosse.
Andrews, M. P., Manitowoc.
Antoine, F. J., Prairie du Chien.
Armstrong, C. E., Oconto.
Armstrong, C. A., Prairie du Chien.
Axley, A. A., Washburn.
Aylward, R. C., Madison.
Babcock, I. G., Cumberland.
Bach, E. C., Milwaukee.
Bachhuber, A. E. Mayville.
Baldwin, F. H., Bloomington.
Bannen, W. E., La Crosse.
Bardeen, C. R., Madison.
Barlow, Roy A., Madison.
Bartran, W. H., Green Bay.
Batty, A. J., Portage.
Bayer, W. H., Merrill.
Bear, W. G., Monroe.
Beck, A. A., Wautoma.
Becker, C. J., Milwaukee.
Becker, W. C., Watertown.
Becker, B. A., Silver Lake.
Beech, G. D., Adams.
Belting, G. W., Orfordville.
Bennett, L. J., Ft. Atkinson.
Benson, G. H., Richland Center.
Bent, X. P., Benton.
Bentley, J. E., Portage.
Bertrand, J. H., DeForest.
Betz, J. C., Boscobel.
Bickel, Edwin F., Oshkosh.
Bill, B. J., Genoa City.
Bilstad, G. E., Cambridge.
Binnie, H. A., Kenosha.
Bird, M. D., Marinette.
Blankinship, R. C., Madison.
Bleckwenn, W. J., Madison.
Blekking, J. H., Sheboygan Falls.
Blewett, M. T., Markesan.
Blom, Julius, Woodville.
Blosmo, O. J., Menomonie.
Blumer, Edw., Monticello.
Blumenthal, R. W., Milwaukee.
Bolton, E. L., Appleton.
Boner, A. J., Mendota.
Booher, J. S., Richland Center.
Boots, F. W., Briggsville.
Bower, R. L., Madison.
Boyce, S. R., Madison.
Boyd, C. D., Kaukauna.
Boyton, R. D., Kilbourn.
Brey, P. F., Milwaukee.
Briggs, S. J., Madison.
Brockway, Frank, Oshkosh.
Brown, Edw. B., Beloit.
Brown, E. J., Madison.
Brown, H. M., Milwaukee.
Brunckhorst, F. O., Hortonville.
Buckland, R. H., Fairwater.
Buckner, H. M., Mt. Horeb.
Buerki, R. C., Madison.
Bunting, Chas. H., Madison.
Cairns, Rolla, River Falls.
Caldwell, H. M., Columbus.
Calvy, P. J., Fond du Lac.
Campbell, W. B., Waukesha.
Canavan, J. P., Neenah.
Carlson, G. W., Appleton.
Carroll, J. H., Milwaukee.
Carson, W. J., Milwaukee.
Carter, R. M., Green Bay.
Carter, H. M., Madison.
Cary, E. C., Reedsville.
Caswell, H. O., Ft. Atkinson.
Chandler, F. E., Waupaca.
Chandler, Jos., Pardeeville.
Charbonneau, A., Green Bay.
Chorlog, J. K., Madison.
Clark, I. F., Wauzeka.
Clark, F. T., Waupun.
Clark, R. B., Monroe.
Clark, W. T., Janesville.
Cleary, B. L., Edgerton.
Goggins, J. W., Chilton.
Coluccy, M. J. J., Madison.
Cooksey, R. T., Madison.
Comstock, Elizabeth, Arcadia.
Connell, F. Gregory, Oshkosh.
Connell, D. R., Beloit.
Coon, G. W., Milton Jct.
Coon, H. M., Stevens Point.
Coon, G. E., Milton Jct.
Cooney, E. W., Appleton.
Constantine, C., Racine.
Corlett, W. S., Blanchardville.
Corr, W. P., Juneau.
Corry, Frank M., Menasha.
Cowan, Wayne F., Stevens Point.
Crone, V. D., Beloit.
Cron, Roland S., Milwaukee.

Cunningham, Wilson, Platteville.
Cunningham, M. A., Janesville.
Curl, Howard, Sheboygan.
Cushing-Lippitt, E., Milwaukee.
Cutting, L. D., Stevens Point.
Dallwig, H. C., Milwaukee.
Darby, G. S., Brodhead.
Davis, Carl H., Milwaukee.
Davis, F. A., Madison.
Dean, James P., Madison.
Dean, Joseph, Madison.
Dearholt, H. E., Milwaukee.
Deicher, H. F., Plymouth.
Denis, Jas. F., Waterloo.
DeWire, M. V., Sharon.
Dierker, Otto F., Watertown.
Doctor, John, Racine.
Dodd, J. M., Ashland.
Dohearty, W. H., Peshtigo.
Domine, Anthony, Mendota.
Dieterle, J. O., Milwaukee.
Doege, K. W., Marshfield.
Donnell, J. E., Cuba City.
Doolittle, J. C., Lancaster.
Dudley, L. W., Statesan.
Duer, G. R., Marinette.
Dwight, C. G., Madison.
Echols, C. M., Milwaukee.
Eek, Gust. E., Lake Mills.
Edwards, A. C., Baraboo.
Edwards, John B., Madison.
Egan, W. J., Milwaukee.
Egloff, L. W., Pewaukee.
Ekblad, V. E., Superior.
Elliott, R. S., Milwaukee.
Elsom, J. C., Madison.
Ennis, S. A. J., Shullsburg.
Epley, O. H., New Richmond.
Evans, Edward, La Crosse.
Evans, James A., La Crosse.
Faber, C. A., Milwaukee.
Falk, V. S., Stoughton.
Fauerbach, Louis, Madison.
Federman, E. H., Montello.
Fencil, Y. J., Casco.
Festerling, E. G., Reedsville.
Fidler, Chas., Milwaukee.
Fiebiger, G. J., Waterloo.
Fiedler, O. A., Sheboygan.
Fike, F. A., Reedsburg.
Fisher, R. F., Wausau.
Fleming, W. J., West Allis.
Flynn, R. E., La Crosse.
Foat, J. S., Ripon.
Foerster, H. R., Milwaukee.
Foerster, O. H., Milwaukee.
Foshion, H. V., Algoma.
Fox, Philip R., Jr., Madison.
Francois, S. J., New Glarus.
Frawley, W. J., Appleton.
Froelich, J. A., Milwaukee.
Froggatt, W. E. L., Cross Plains.
Fucik, E. J., Williams Bay.
Ganser, W. J., Madison.
Gates, A. J., Tigerton.
Gephart, C. H., Kenosha.
Gillette, H. E., Pardeeville.
Glasier, M. B., Bloomington.
Gnagi, W. B., Monroe.
Goetsch, O. F., Hustisford.
Gramling, J. J., Milwaukee.
Gramling, H. J., Milwaukee.
Gray, A. W., Milwaukee.
Greenwood, S. D., Neenah.
Grinde, G. A., Cumberland.
Griswold, F. L., Mazomanie.
Graves, L. S., Mineral Point.
Greeley, H. P., Madison.
Groves, R. J., Lodi.
Gudex, V. A. Eau Claire.
Guildford, H. M., Madison.
Guilfoyle, J. P., Evansville.
Gundersen, C. A. S., Madison.
Hadden, M. R., Walworth.
Hagerup, T. A., Dodgeville.
Halsey, W. H., Milwaukee.
Hammond, A. W., Beaver Dam.
Hansberry, J. S., Wonewoc.
Hansberry, P. H., Hillsboro.
Hansen, John, Glenhulah.
Harper, C. A., Madison.
Harper, Carl S., Madison.
Harrington, T. L., Milwaukee.
Hartman, R. C., Janesville.
Harvey, J. R., Footville.
Hassall, J. C., Oconomowoc.
Hathaway, G. J., Superior.
Haubrick, H. J., Oshkosh.
Hayman, C. S., Boscobel.
Head, L. R., Madison.
Heidner, A. H., West Bend.
Heidner, F. C., Milwaukee.
Helm, H. M., Beloit.
Helm, A. C., Beloit.
Henika, G. W., Madison.
Henken, J. F., Racine.
Henney, C. W., Portage.
Henke, W. A., La Crosse.
Henske, W. C., Chippewa Falls.
Herner, W. L., Milwaukee.
Heyer, O. C., Reedsburg.
Hildebrand, G. J., Sheboygan.
Hodges, F. J., Madison.
Hoffman, Leo., Campbellsport.
Hood, A. J., Milwaukee.
Hosmer, M. S., Ashland.
Hough, A. G., Madison.
Howell, E. C., Fennimore.
Hoyer, A. A., Beaver Dam.
Hoyme, G., Eau Claire.
Hudek, D. F., Princeton.
Hudson, R. J., Prairie du Sac.
Hurd, H. H., Chippewa Falls.
Hurlbut, J. A., Madison.
Ingersoll, R. S., Madison.
Irwin, G. H., Lodi.
Irwin, H. J., Baraboo.
Ishmael, O. E., Madison.
Jackson, J. A., Mosinee.
Jackson, Arnold, Madison.
Jackson, R. H., Madison.
Jegi, H. A., Galesville.
Jermain, W. M., Milwaukee.
Jewell, E. L., Loganville.
Jobse, W. P., Milwaukee.
Johnston, W. M., Johnson Creek.
Johnson, H. B., Tomah.
Johnson, F. G., Iron River.
Johnson, H. C., Madison.
Jones, D. T., Wausau.
Juers, R. H., Birnamwood.
Jurss, G. J., Milwaukee.
Juster, E. M., Madison.
Kamm, A. X., Ashland.
Kassowitz, K. E., Wauwatosa.
Kastner, A. L., Milwaukee.
Kauth, Phillip, Slinger.
Kay, Harry M., Madison.
Kearns, W. M., Milwaukee.
Keenan, Harry A., Stoughton.
Kelly, D. M., Baraboo.
Kennedy, F. H., Iron Ridge.
Kenney, R. L., Mendota.
Keithley, J. W., Beloit.
Kellogg, J. R., Portage.
Keyes, S. M., Oshkosh.
King, J. M., Milwaukee.
Knauf, N. J., Chilton.
Knox, E. S., Green Bay.
Koeh, H. C., Whitehall.
Koehler, J. P., Milwaukee.
Kosanke, F. E., Watertown.
Krembs, F. R., Stevens Point.
Krohn, H. C., New Holstein.
Krueger, Bernard, Cudahy.
Kunny, B., Baldwin.
Lademann, O. E., Milwaukee.
Laird, J. J., Black Creek.
Lalor, J. C., Sauk City.
Lambert, J. W., Antigo.
Lawrence, G. H., Stevens Point.
Lee, J. H., Madison.
Leeson, Fred W., Beloit.
Lehnkering, C. F., Darlington.
Leicht, Philip, Lake Mills.
Leitzell, P. W., Benton.
Lemmel, J. T., Albany.
Liefert, Wm. C., Milwaukee.
Lindsay, W. T., Madison.
Lindores, J. D., Stevens Point.
Linn, W. N., Oshkosh.
Lippitt, S. H., Milwaukee.
Littig, L. V., Madison.
Lockhart, J. W., Oshkosh.
Loevenhart, A. S., Madison.
Loope, T. E., Iola.
Lorenz, W. F., Madison.
Lotz, Oscar, Milwaukee.
Lowe, Chas. R., Union Grove.
Lowe, J. W., Taylor.
Ludden, Homer D., Mineral Point.
Lueck, G. W., La Crosse.
Lynch, H. M., Allenton.
Lynch, D. W., West Bend.
McCabe, Harry, Milwaukee.
McCann, Edith, Milwaukee.
McDowell, A. J., Soldiers Grove.
McGovern, J. J., Milwaukee.
McGrath, Edw., Baraboo.
McIntosh, R. L., Madison.
McLaughlin, W. J., Wrightstown.
McMahon, F. B., Milwaukee.
McMahon, Henry O., Milwaukee.
McMahon, J. P., Milwaukee.
McQuillin, E. D., New Glarus.
MacCollum, C. L. R., Manitowoc.
MacDonald, Wm. H., Lake Geneva.
MacLachlan, W. G., MacFarland.
MacLaren, J. B., Appleton.
Maas, W. C., Rio.
Macaulay, E. M., Wausau.
Majerus, P. J., Ft. Atkinson.
Marek, F. B., Racine.
Marsh, Harold E., Madison.
Marsh, Jas. M., Elkhorn.
Marshall, F. P., Fond du Lac.
Mauermann, J. F., Monroe.
Meade, Frank S., Madison.
Meany, S. G., East Troy.
Medlar, E. M., Madison.
Metcalf, G. S., Janesville.
Meusel, Harry, Oshkosh.
Middleton, W. S., Madison.
Midelfart, H. C., Eau Claire.
Miller, E. W., Milwaukee.
Milbee, H. H., Marshfield.
Minahan, J. J., Chilton.
Minahan, J. R., Green Bay.
Mitchell, E. J., Brodhead.
Moe, H. B., Blanchardville.
Montgomery, R. C., Madison.
Monroe, W. B., Monroe.
Moore, L. A., Monroe.
Morris, R. C., Ft. Atkinson.
Morris, Sarah I., Madison.
Morton, H. H., Cobb.
Mowry, W. A., Madison.
Mudroch, J. A., Columbus.
Munn, Wayne A., Janesville.
Murphy, Francis D., Milwaukee.
Nadeau, A. T., Marinette.
Nauth, D. F., Kiel.
Nause, F. A., Sheboygan.
Neidhold, C. D., Appleton.
Neilson, G. W., Milwaukee.
Nelson, N. O., Madison.
Nelson, O. O., Madison.
Nicely, W. E., Waukesha.
Nickels, A. C., Watertown.
Nixon, H. G. B., Hartland.
Noer, P. J., Wabeno.
Nott, Geo. W., Racine.
Nuzum, Thos. W., Janesville.
O'Brien, J. M., Oregon.
O'Brien, W. T., Mauston.
Oliver, T. J., Green Bay.
Olson, A. L., Stoughton.
Omsted, Nils, Stoughton.
Orban, Louis, Waupun.
Overton, O. V., Janesville.
Palmer, J. A., Arcadia.
Parke, Geo., Viola.
Patek, A. J., Milwaukee.
Pearlman, Henry B., Belleville.
Perry, Gentz, Kenosha.
Peterman, M. G., Milwaukee.
Peterson, M. G., Lake Mills.
Pfeifer, E. C., Racine.
Peters, H. A., Oconomowoc.
Peterson, L. W., Sun Prairie.
Peterson, C. F., Independence.
Pippin, B. I., Richland Center.
Pirsch, Margaret, Kenosha.
Pleyte, A. A., Milwaukee.
Plumlee, R. S., Brooklyn.
Podlasky, H. B., Milwaukee.
Pomainville, Frank, Wisconsin Rapids.
Pope, F. W., Racine.
Poser, E. M., Columbus.
Powers, H. W., Milwaukee.
Prentiss, Pearce, South Wayne.
Puestow, K. L., Madison.
Puls, A. J., Milwaukee.
Purcell, H. E., Madison.
Quade, E. B., Wausau.
Quinn, R. B. Darlington.
Quisling, Sverre, Madison.
Raasock, Halfdan, Nelsonville.
Radloff, A. C., Plymouth.
Randall, M. W., Blue River.
Raube, H. A., Beloit.
Rauch, W. A., Valders.
Reagles, Robt., Arlington.
Redelings, T. J., Marinette.
Rehorst, J. J., Fond du Lac.
Reineck, C., Appleton.
Remer, Wm. H., Chaseburg.
Reese, Hans H., Madison.
Rhea, C. W., Waukesha.
Rice, Carroll W., Lake Geneva.
Ridgway, E. T., Elkhorn.
Ringo, H. F., Montreal.
Riopelle, W. G., Beaver Dam.
Riordan, J. F., Berlin.
Roberts, D. W., Milwaukee.
Roberts, R. R., Beaver Dam.
Rodecker, R. C., Holcombe.
Rogers, R. B., Neenah.
Rogers, A. W., Oconomowoc.
Rogers, J. C., Waukesha.
Rogers, P. F., Milwaukee.
Rosenberry, A. B., Wausau.

Rosenheimer, A. M., Fox Lake.
Rowley, A. G., Middleton.
Rueth, J. E., Milwaukee.
Ruka, E. A., Muscoda.
Rundell, A. S., Beloit.
Ryan, C. E., Appleton.
Sargent, H. W., Waukesha.
Sattre, O. M., Rice Lake.
Sauthoff, Mary, Mendota.
Sauthoff, Aug., Mendota.
Sayles, L. W., Baraboo.
Scheele, F. M., Wauksha.
Schlaepfer, Karl, Milwaukee.
Schmidt, Erwin, Madison.
Schneider, C. C., Milwaukee.
Schneiders, E. F., Madison.
Scholz, Herbert F., Thiensville.
Schlossman, B., Washburn.
Schmeling, A. F., Columbus.
Schneller, E. J., Racine.
Schumm, Herman C., Milwaukee.
Schulz, H. A., Ripon.
Schubert, C. K., Madison.
Scott, B. E., Berlin.
Seaman, G. E., Milwaukee.
Sears, H. B., Oshkosh.
Seeger, S. J., Milwaukee.
Seller, Elizabeth, Kenosha.
Sevringhaus, E. L., Madison.
Sexton, W. G., Marshfield.
Shaw, B. W., Waunakee.
Shearer, H. A., Edgerton.
Sheehy, T. J., Tomah.
Shepard, E. L., Brandon.
Sherman, Adin, Winnebago.
Sherwood, M. W., Milwaukee.
Shuart, C. D., Waupun.
Simon, L. J., Fond du Lac.
Sincock, H. A., Superior.
Smedal, Ellef, La Crosse.
Smiles, C. J., Ashland.
Skwor, Chas. J., Mishicot.
Slsk, Ira R., Madison.
Slsk, J. N., Madison.
Smith, E. A., Milwaukee.
Smith, Chas. E., Beloit.
Smith, Jos. F., Wausau.
Smith, S. M. B., Wausau.
Snyder, Karl, Portage.
Sommers, J. C., Madison.
Somers, A. J., Chippewa Falls.
Sorenson, E. D., Elkhorn.
Spiegelberg, E. H., Boscobel.
Sprague, L. V., Madison.
Stamm, L. P., Milwaukee.
Stang, H. M., Eau Claire.
Stebbins, W. W., Madison.
Stevens, J. V., Janesville.
Stewart, W. C., Kenosha.
Stovall, W. D., Madison.
Studley, F. C., Milwaukee.
Stuessy, Sylvia G., Madison.
Sullivan, A. G., Madison.
Sullivan, E. S., Madison.
Sylvester, Homer, Madison.
Tasche, J. C., Sheboygan.
Taugher, A. J., Milwaukee.
Taylor, F. B., Madison.
Taylor, J. Gurney, Milwaukee.
Taylor, L. L., Waupun.
Tenney, H. K., Jr., Madison.
Terlinden, J. H., Bonduel.
Tharinger, E. L., Milwaukee.
Thayer, F. A., Beloit.
Tibbitts, U. J., Waukesha.
Tierney, E. F., Portage.
Tindall, F. G., Belleville.
Tormey, A. R., Madison.
Tormey, T. W., Madison.
Towne, W. H., Shiocton.
Townsend, E. J., Madison.
Treadwell, C. L., Withee.
Trentzsch, M. W., Highland.
Trowbridge, W. M., Viroqua.
Tryon, F. E., Baraboo.
Tucker, W. J., Ashland.
Twohig, H. E., Fond du Lac.
Urquhart, C. C., Hurley.
Van Kirk, F. W., Janesville.
VanSchaick, R. E., Caroline.
Venning, J. R., Ft. Atkinson.
Vingoni, C. O., Madison.
Visher, J. W., Waukesha.
Vogel, C. C., Elroy.
Voje, J. H., Oconomowoc.
Wadey, B. J., Belleville.
Waldschmidt, J., Fond du Lac.
Walters, D. N., Fond du Lac.
Warfield, L. M., Milwaukee.
Waters, Don., Wisconsin Rapids.
Weber, Carl J., Sheboygan.
Weber, A. J., Milwaukee.
Welke, E. G., Madison.
Werner, H. C., Fond du Lac.
Weston, Frank L., Madison.
Whalen, G. E., Milwaukee.
Wiley, F. S., Fond du Lac.
Wilkinson, J. F., Oconomowoc.
Wilkinson, M. R., Oconomowoc.
Willett, T., West Allis.
Witepalek, W. W., Algoma.
Wiesender, A. J., Berlin.
Windesheim, G., Kenosha.
Wing, W. S., Oconomowoc.
Witte, D. H., Milwaukee.
Wochos, W. M., Kewaunee.
Wolf, H. E., La Crosse.
Wood, C. A., Albany.
Woodhead, F. J., Waukesha.
Wooll, G. K., Janesville.
Wright, J. C., Antigo.
Yates, C. A., Kendall.
Zilisch, H. E., Milwaukee.
Zwaska, A. B., Rockton, Ill.
Zmyslony, W. P., Milwaukee.

Honorary Members

Gorst, Charles, Madison.
Miller, W. S., Madison.
Sheldon, C. S., Madison.
Whyte, W. F., Madison.



Since the meeting many members have inquired where they might obtain a copy of the address given by President Glenn Frank. This address will be printed in the next issue of the Journal, the November number.

* * *

Attending every session of the House of Delegates, every meeting of the Council, and all of the scientific sessions, was Dr. "Charlie" Sheldon, Secretary Emeritus of the Society. "Charlie" not only attended the meetings but more than contributed his share when he led the sawbone chorus from the speakers' table on the evening of the annual dinner. The first was "Lydia Pinkham" and then for the encore, "The Bulldog on the Bank."

And to cap the climax he told the writer on the final afternoon that he had enjoyed this meeting as none before and was returning to his practice feeling ten years younger.

* * *

With five hundred and fifty members registered at the Madison meeting, it holds the new record for the largest meeting held outside of Milwaukee.

* * *

One of the most disappointed of local physicians on the occasion of the state meeting, was Dr. Philip Fox, Madison's dean of physicians. Now nearly eighty-seven years of age and weak physically, Dr. Fox, much as he desired, was unable to attend any of the sessions of the society.

* * *

A display of aged and rare medical classics, most of them in the original Latin and several from hundred years old, were placed in the meeting hall by Dr. Chauncey D. Leake, associate professor of pharmacology of the University of Wisconsin. The display, containing about fifty valuable books, is the result of five years of collecting effort on the part of Dr. Leake.

* * *

Member after member commented on the notable spirit of enthusiasm and the informality, declaring that it is this desirable spirit which makes the Wisconsin meetings stand out above all others they attend.

* * *

The members had to forgo a treat which had been arranged by the Dane County Society for Wednesday afternoon. Continued rain necessitated the cancelling of the garden party at the home of Dr. F. A. Davis, Middleton Road.

* * *

Officers declared that at no previous session had there been such a uniform, excellent attendance at the House of Delegates. The House met on three successive days and as result of the attendance and excellent work of the reference committees, accomplished an unusual amount of business and formulated many new policies for future work of the society.

* * *

Dr. M. P. Andrews of Manitowoc, and Dr. Carl S. Harper, Madison, tied for the President's cup in the

golf tournament. Because of the heavy rain, the tie was broken by a toss of the coin, with Dr. Andrews winning the cup. The Secretary's cup was presented to Dr. Joseph H. Carroll, of Milwaukee.

FOUND IN THE MAIL.

"He Lost His Badge

At Madison, yet he had no reason to complain
The girls bedecked all alike, at the Hotel Loraine—
Not a cent was he requested to disgorge
Everything was free, thanks to busy George.
The program was a WOW, of the kind intellectual
Some of it was rheumatical, if not spiritual.
The House of Delegates voted next to hold forth at O'Clare
Turning down Milwaukee, which wasn't fair.
Some of the golfers had to play in rubber boots,
It was so damp where they went to make the "shoots".
The leading banquet speaker was Frank, certainly not out of place
After Charlie Sheldon had Lydia show her face.
At the Smoker there were many funny rigs
And there were some pretty girls to dance the jigs,
Maybe that was where he lost his badge!
But honest, that was not the reason why—
We wanted to go to see the girls again,
Whom he hopes to meet again at O'Clare,
In the Sweet Bye and Bye."

Program of Interest to General Profession Features Milwaukee Meeting of Radiological Society of North America

The Radiological Society of North America meets in Milwaukee November 29th–December 4th. With a scientific program that is largely clinical in character, the Radiological Society of North America will hold its twelfth annual meeting in the Milwaukee Auditorium beginning November 29th. Dr. Allen Williams, chairman of the program committee, has announced that the program has been formulated with the basic thought that it should be of interest and value to the general practitioner and surgeon, as well as to the members of the society. In the preliminary program twenty-five papers are on purely clinical subjects, forty-eight on diagnosis, fifteen on therapy, seventeen on research, and six dealing with miscellaneous subjects.

The Milwaukee County Radiological Society, host of the meeting, has organized many subcommittees that the program in its entirety may include that which will make the Wisconsin meeting stand out above all others. The executive committee in charge of the general arrangements include Dr. H. B. Podlasky, chairman, Dr. C. W. Geyer, and Dr. F. W. Mackoy, all of Milwaukee. On Wednesday evening Dr. William Mayo and others will present papers dealing with the present status of the cancer problem which will be broadcasted over the Marquette University radio station. A public health meeting will be held on Friday evening. The annual banquet will be given at the Elks' Club on Thursday evening and a smoker will be held at the Elks' Club on Friday evening following the public health meeting.

Preparations are being made for the accommodation of 1,500 to 2,000 members and guests. The executive committee emphasizes the fact that every member of the State Medical Society of Wisconsin is invited to attend this meeting and that there is no fee connected with registration.

ACKNOWLEDGMENT

The Editorial Board takes this opportunity to acknowledge the work of Dr. F. W. Mackoy, Milwaukee, who acted as editor for this special Radiological Number of the Journal.

All of Juneau Hall at the Milwaukee Auditorium will be occupied by the scientific exhibit. Upwards of 2,000 films and specimens have been pledged for this display. The scientific exhibitors include: Marquette University School of Medicine, the University of Wisconsin, the Field Museum, the United States Bureau of Standards, the General Electric Company, as well as private individuals and clinics throughout the country. It is the purpose of the scientific exhibit to both amplify the program and to provide a program in itself sufficient in the study of different phases of roentgenology and radiotherapy.

SPECIAL RATES

One and a half fare for the round trip, certificate plan, has been secured for this meeting. All who attend, including wives and families, should secure a certificate when buying tickets to Milwaukee. These certificates will be validated by a special railroad clerk at the Auditorium and will then be good for one-half fare reduction on the return trip.

A large commercial exhibit will be shown in

INVITATION

The Radiological Society of North America extends to the members of the medical profession of Wisconsin a cordial invitation to attend our annual meeting at Milwaukee, November 29, to December 4, inclusive. We are planning on an instructive as well as an interesting program for the men in general practice as well as those practicing the specialties of medicine.

The program will not be confined to the technical or theoretical consideration of the use of the x-rays as a specialty. It is planned to make our program very largely a clinical symposium, special attention being given to the clinical aspect of the subjects considered. We are planning to have the different subjects presented in such a manner as to bring out the most advanced ideas in the various branches of medicine. Representative men from all sections of the United States, Canada and Europe will take part in the program.

The Radiological Society of North America is the largest organization of its kind in the world today. To miss our meeting will be to miss one of the greatest opportunities for postgraduate instruction and observation. Elaborate arrangements are being made to entertain the visiting ladies. Therefore, do not forget to bring friend wife along.

BERTRAM CHARLES CUSHWAY,
President,
Radiological Society of North America.

other halls of the Auditorium. The restaurant operated on the Auditorium premises will be opened for the convenience of members and guests and information booths, mail service, and special phone service will be available at the registration desk in the central lobby.

The preliminary program follows:

PRELIMINARY PROGRAM OF THE TWELFTH ANNUAL MEETING

MILWAUKEE, NOV. 29–DEC. 4, 1926

1. Albert Bachem, Ph.D., Chicago, Ill.
   Physiological and Biological Observations of Skin Reactions.
2. E. A. Pohle, M.D., University of Michigan, Ann Arbor, Mich.
   Studies of Capillary Changes as a Result of Roentgen Ray Erythema Occurring in the Human Skin.
3. W. D. Coolidge, Ph.D., Schenectady, N. Y.
   Cathode Rays Outside the Generating Tube.
4. A. U. Desjardins, Rochester, Minn.
   Analgesic Properties of Roentgen Rays.
5. W. W. Belden, M.D., New York City.
   John Remer, M.D., New York City.
   The Diagnosis and Therapy of Intrathoracic Tumors.
6. W. S. Lawrence, M.D., Memphis, Tenn.
   The Treatment of Systemic Blastomycosis.
   Executive Session Followed by Counselors' Meeting and Executive Meeting
7. J. T. Stevens, M.D., Montclair, N. J.
   Treatment of Carcinoma of the Cervix with Radium, Roentgen Ray and Electrocoagulation.
8. H. H. Bowing, M.D., Rochester, Minn.
   The Treatment of Carcinoma of the Rectum by Irradiation: A Report of a Small Series of Cases.
9. W. T. Bovie, Ph.D., Harvard University, Cambridge, Mass.
   (Title to be announced later.)
10. Maud Slye, University of Chicago, Chicago, Ill.
    Heredity.
11. M. J. Sittenfield, M.D., New York City.
    The Causation of Cancer with Reference to Recent Experimentation.
12. Albert Soiland, M.D., Los Angeles, Calif.

Bertram C. Cushway, M. D., Chicago, President, Radiological Society of North America.

The Metallic Colloids in the Treatment of Cancer.

13. Hermann Wintz, M.D., Erlangen, Germany.
The Action of Roentgen Rays on Glands of Internal Secretion.

14. E. A. Pohle, M.D., Ann Arbor, Mich.
Motion Picture Film of the Human Skin Capillaries.

15. Prof. B. Niekau, from the Medical Clinic of the University of Tubingen, Germany.
Human Skin Capillaries and Their Changes during Circulation of the Blood.

16. J. A. E. Eyster, M.D., University of Wisconsin, Madison, Wis.
Practical Aspects of Radiography of the Heart.

17. Charles E. Ide, M.D., Milwaukee, Wis.
Correllation of X-Ray Films, Clinical Findings and Blood Pressure Readings in a Series of 300 Cases.

18. A. W. Crane, M.D., Kalamazoo, Mich.
Dilatation of the Thoracic Aorta.

19. B. H. Nichols, M.D., Cleveland, Ohio.
Some Observations from a Roentgenological Study of the Aorta.

20. W. H. Wallace, M.D., Brooklyn, N. Y.
Early Infections in the Thorax.

21. H. K. Dunham, M.D., Cincinnati, Ohio.
The Value of an X-Ray Study in the Care of Cases Suffering from Pulmonary Tuberculosis.

22. U. V. Portmann, M.D., Cleveland, Ohio.
Problems in Physiotherapy.

23. H. A. Jarre, M.D., Detroit, Mich.
Lipiodol in Diagnosis and Therapy.

24. Adolph Hartung, M.D., Chicago, Ill.
The Diagnostic Value of Iodized Oil in Intrathoracic Lesions.

25. Stuart Pritchard, M.D., Battle Creek, Mich.
Bruce Whyte, M.D., Battle Creek, Mich.
J. K. M. Gordon, M.D., Battle Creek, Mich.
The Use of Supraglottic, Intratracheal Infections of Iodized Oil in the Diagnosis of Bronchiectasis. Clinical demonstration.

26. H. P. Doub, M.D., Detroit, Mich.
Radiation Effects in Nephritis.
Symposium on the Urinary Tract. Chairman: B. H. Nichols, M.D., Cleveland, Ohio.

27. W. F. Braasch, M.D., Rochester, Minn.
(Title to be announced later.)

28. D. A. Eisendrath, M.D., Chicago, Ill.
Robert Arens, M.D., Chicago, Ill.
Further Studies of the Normal Renal Pelvis.

29. Walter M. Kearns, M.D., Milwaukee, Wis.
Pyelography in Renal Tuberculosis.

30. Edward C. Koenig, M.D., Buffalo, N. Y.
X-Ray Assistance in Solving Genito-Urinary Problems.

31. Vincent J. O'Conor, M.D., Chicago, Ill.
The Value of Ureteropyelography as a Diagnostic Aid.

Executive Session, Election of Officers

32. R. B. Bettman, M.D., Chicago, Ill.
Robert Arens, M.D., Chicago, Ill.
Empyema.

33. Le Roy Sante, M.D., St. Louis, Mo.
Atelectasis, or Massive Collapse of the Lung.

34. F. W. O'Brien, M.D., Boston, Mass.
Elevation of the Diaphragm.

35. J. Paul Keith, M.D., Louisville, Ky.
D. Y. Keith, M.D., Louisville, Ky.
J. C. Bell, M.D., Louisville, Ky.
The Significance of Delay of Barium in the Second Portion of the Duodenum.
Symposium on Chronic Stasis in the Upper In-

THE MILWAUKEE MEETING

The Milwaukee meeting of the Radiological Society of North America has been planned to bring before the medical and dental professions of Wisconsin the most authoritative work in this field. The scientific exhibit will be one of the most complete shown at any of the annual meetings.

The Milwaukee County Radiological Society extends a cordial invitation to every member of the medical and dental professions in the state to be present at the annual meeting of the Radiological Society of North America in Milwaukee, November 29 to December 4 inclusive. Admission cards issued on registration. No fees.

H. B. Podlasky, *President.*

Milwaukee County Radiological Society.

FROM MILWAUKEE COUNTY

The Radiological Society of North America is arranging a program of unusual merit for its annual meeting in December. It is the good fortune of the medical profession of Milwaukee that this meeting is to be held here. Within a few years radiology has become one of the important departments of medicine. In one way or another some feature of this science is of interest to all physicians, no matter in what special field they may practice. The symposium on cancer, featuring national authorities in various specialties, is illustrative of the general excellence of the program.

STANLEY J. SEEGER, *President*,
Medical Society of Milwaukee County.

testinal Tract. Chairman: J. F. Herrick, M.D., Ottumwa, Iowa.

36. W. H. Holmes, M.D., Chicago, Ill. (Medical.)
37. E. A. Kellogg, M.D., New York. (Surgical.)
Chronic Duodenal Stasis.
38. J. A. Wolfer, M.D., Chicago, Ill. (Surgical.)
39. J. T. Case, M.D., Battle Creek, Mich. (Radiological.)
40. A. C. Ivy, M.D., Chicago, Ill. (Pathological.)
41. W. C. Alvarez, M.D., Rochester, Minn.
Gastric Waves which the Roentgenologist Ordinarily Does Not See.
Symposium on Colonic Conditions. Chairman: L. J. Carter, M.D., Manitoba, Canada.
42. L. J. Carter, M.D., Manitoba, Canada.
Colonic Dynamics.
43. J. C. McMillan, M.D., Winnipeg, Canada.
Colonic Spasticity.
44. C. M. Henry, M.D., Regina, Sask., Canada.
Colonic Stasis.
45. B. R. Mooney, M.D., Edmonton, Alberta, Canada.
Colonic Ulceration.
46. W. B. McGuffin, M.D., Calgary, Alberta, Canada.
Colonic Malignancy.

WISCONSIN DAY PROGRAM
Wednesday, Dec. 1, 8:00 p. m.

Semi-Public.

Symposium on Cancer. Chairman: Joseph F. Smith, M.D., President Wisconsin State Medical Society.
Father Fox, President Marquette University. Opening remarks.
47. J. M. Martin, M.D., Dallas, Texas.
X-Ray Treatment of Skin Malignancies.
48. G. E. Pfahler, M.D., Philadelphia, Pa.
X-Ray and Radium Treatment of Malignancy.
49. W. J. Mayo, M.D., Rochester, Minn.
The Surgical Treatment of Cancer.
Motion Picture.

E. W. Rowe, M. D., Lincoln, Nebraska, President-Elect, Radiological Society of North America.

50. J. M. Martin, M.D., Dallas, Texas.
The Cancer Problem.
51. Irving F. Stein, M.D., Chicago, Ill.
Pneumoperitoneum in Relation to Gynecology.
52. Edwin C. Ernest, M.D., St. Louis, Mo.
Fluoroscopic Unit.
53. Symposium on Fluoroscopy. Chairman: B. H. Orndoff, M.D., Chicago, Ill.
Symposium on the Roentgenological Aspects of the Diagnosis of Diseases of Infants and Children.
Chairman: Leon T. LeWald, M.D., New York City.
54. Max M. Peet, M.D., Ann Arbor, Mich.
Diagnosis of Cerebellar Lesions.
55. G. J. Noback, M.D., New York City.
Further Studies of the Infant Thorax, Thymus and Heart.
56. W. W. Wasson, M.D., Denver, Colo.
The Chest—Diagnosis.
57. E. L. Jenkinson, M.D., Chicago, Ill.
Philip Lewin, M.D., Chicago, Ill.
The Osseous System—Diagnosis.
58. William A. Evans, M.D., Detroit, Mich.
Sinuses and Mastoids—Technic in Roentgen Examination of Children.
59. Henry G. Bugbee, M.D., New York, N. Y.
Urinary Tract—Diagnosis.
60. Leon T. LeWald, M.D., New York, N. Y.
The Digestive Tract.
61. W. B. Mullin, M.D., Cleveland, Ohio.
An Experimental and Clinical Study Showing the Rôle of the Nasal Accessory Sinuses in the Production of Bronchial Disease.

Symposium on Intra-Oral Cancer. Chairman: Douglas Quick, M.D., New York, N. Y.

62. James Ewing, M.D., New York, N. Y. (Pathology.)
63. E. Starr Judd, M.D., Rochester, Minn. (Surgery.)
64. Curtis Burnam, M.D., Baltimore, Md. Radium in Intra-Oral Cancer.
65. James J. Duffy, M.D., New York, N. Y. Treatment of Cervical Nodes in Intra-Oral Cancer.
66. Crosby Green, M.D., Boston, Mass. Electrocoagulation in Intra-Oral Cancer.

Symposium on Medical Education with Reference to Roentgenology. Chairman: Preston M. Hickey, M.D., Ann Arbor, Mich.

67. Dr. Lindsay, Ann Arbor, Mich. The Pre-Medical Aspect of the Training of the Roentgenologist.
68. C. R. Bardeen, M.D., Madison, Wis. Anatomy and Roentgenology.
69. W. J. Meek, M.D., Madison, Wis. The Relation of Physiology to Roentgenology.
70. E. S. Blaine, M.D., Chicago, Ill. The Essentials of the Teaching of Roentgenology to Post-Graduate Students.
71. Preston M. Hickey, M.D., Ann Arbor, Mich. The Teaching of Roentgenology to Undergraduates.

Symposium on Intracranial Lesions. Chairman: G. W. Grier, M.D., Pittsburgh, Pa.

72. L. E. Davis, M.D., Chicago, Ill. (Surgical.)
73. M. C. Sosman, M.D., Boston, Mass. (Radiological.)
74. H. L. Pollock, M.D., Chicago, Ill. (Neurological.)

Symposium on the Nasal Sinuses. Chairman: A. Granger, M.D., New Orleans, La.

75. William D. Sansum, M.D., Santa Barbara, Calif. The Paranasal Sinuses as a Source of Focal Infection.
76. Marion E. Brown, M.D., New Orleans, La. Ocular Manifestation of Diseases of the Paranasal Sinuses.
77. H. J. Ullmann, M.D., Santa Barbara, Calif. Roentgen Diagnosis of Nasal Sinus Disease.
78. J. R. Hume, M.D., New Orleans, La. Diagnosis and Treatment of Nasal Sinus Disease.
79. A. W. Proetz, M.D., St. Louis, Mo. Edwin C. Ernst, M.D., St. Louis, Mo. Displacement Method of Sinus Diagnosis with Iodized Oils.

ANNUAL BANQUET

80. T. O. Menees, M.D., Grand Rapids, Mich. Oral Cholecystography.
81. B. R. Kirklin, M.D., Rochester, Minn. Newer Developments in Cholecystography.
82. Sherwood Moore, M.D., St. Louis, Mo. Cholecystography.
83. Charles G. Sutherland, M.B. (Tor.), Rochester, Minn. Duodenal Ulcer: Comparison of the Roentgenologic and Histologic Findings.
84. S. C. Barrow, M.D., Shreveport, La. Roentgen Analysis of Bone Lesions.
85. E. L. Jenkinson, M.D., Chicago, Ill. (Title to be announced.)
86. Henry W. Meyerding, M.D., Rochester, Minn. Discussion of Radiological Findings. Age, Sex, Incidence, Treatment and Possibility of Recurrence in a Review of a Group of Several Hundred Cases of Exostoses.
87. Max Kahn, M.D., Baltimore, Md. L. C. Cohn, M.D., Baltimore, Md. Diagnosis and Treatment of Bone Lesions of the Hand and Foot, with Special Reference to Bone Tumors.
88. William C. MacCarty, M.D., Rochester, Minn. Pathology of Bone Lesions.
89. M. A. Bernstein, M.D., Chicago, Ill. Unusual Bone Lesions and Their Diagnosis (Cases of Epiphyseolysis).
90. Lyell C. Kinney, M.D., San Diego, Calif. A. E. Elliott, M.D., San Diego, Calif. Explosive Fractures of the Head of the Humerus.
91. Stanley J. Seeger, M.D., Milwaukee, Wis. Pancreatic Lithiasis.
92. J. A. Evans, M.D., La Crosse, Wis. Carcinoma of the Splenic Flexure.
93. H. P. Mills, M.D., Phoenix, Ariz. W. W. Watkins, M.D., Phoenix, Ariz. Localization of Foreign Bodies in the Eye.
94. R. G. Allison, M.D., Minneapolis, Minn. Recognition of Non-Opaque Foreign Bodies in the Air Passages.
95. Charles F. Bowen, M.D., Columbus, Ohio. Diagnosis and Removal of Foreign Bodies in the Bronchus and Esophagus.
96. L. G. Cole, M.D., New York, N. Y. Roentgenological Technic.
97. I. Seth Hirsch, M.D., New York, N. Y. Roentgenological Conditions in Russia.
98. T. B. Young, M.D., Scottsbluff, Neb. A. L. Cooper, M.D., Scottsbluff, Neb. A Study in Paleopathology.
99. Isaac Gerber, M.D., Providence, R. I. Further Observation on the X-Ray Treatment of Bronchial Asthma and Allied Conditions.

Symposium on Public Health. Chairman. M. J. Hubeny, M.D., Chicago, Ill.

100. Herman N. Bundesen, M.D., Health Commissioner of Chicago. The Rôle of the X-Ray in Public Health.
101. Weston A. Price, M.D., Cleveland, Ohio. Dental Infections: Their Dangers and Prevention.

SMOKER

102. Edward H. Skinner, M.D., Kansas City, Mo. Chronologic Changes of the Human Vertebral Column: Their X-Ray Analysis.
103. John D. Camp, M.D., Boston, Mass. Radiation Therapy of Intracranial Lesions.
104. John D. MacRae, M.D., Asheville, N. C. Therapy.
105. H. J. Ullmann, M.D., Santa Barbara, Calif. The Use of Colloidal Lead in Cancer after the Method of Blair Bell: Preliminary Report.

106. Robert S. Landauer, Ph.D., Physical Laboratory of Standard X-Ray Company, Chicago, Ill.
Research Work.
107. Montrose T. Burrows, M.D., St. Louis, Mo.
Louis H. Jorstad, M.D., St. Louis, Mo.
Edwin C. Ernst, M.D., St. Louis, Mo.
Vitamins in Carcinoma and the Effects of X-Ray Radiation.
108. Otto Glasser, Ph.D., New York, N. Y.
Further Studies on the Influence of the Radiation Quality on the Measured Intensity of the Erythema Dose.
109. I. S. Trostler, M.D., Chicago, Ill.
Malpractice and Insurance Problems.
110. Frank Bissell, M.D., Minneapolis, Minn.
Rationale of Gall-Bladder Diagnosis.

Radiology in Medicine and the Specialties

OBSTETRICS AND GYNECOLOGY

The use of x-ray in obstetrics and gynecology has been developed considerably during the past five years. In obstetrics more accurate pelvic measurements have been obtained and the relation of the presenting part to the mother's pelvis before and during labor has been studied. A relatively early diagnosis of pregnancy is also possible, and multiple pregnancies and monsters have been diagnosed by means of x-ray plates.

The use of pneumo-peritoneum with x-rays in gynecological diagnosis has a limited but real place. X-ray treatment of small fibroids has proved of value when operation is refused or contra-indicated. X-ray treatment may also have some value in the therapy of pelvic cancer.—Roland S. Cron, M.D.

PEDIATRICS

What is the present status of the x-ray in pediatrics? We are all very apt to take the x-ray for granted, but is it not truly astounding how much the pediatrist depends on it? The specific mention of the almost endless array of pathological conditions in which the x-ray is of diagnostic or therapeutic value in pediatrics is not necessary. To think of rickets, scurvey, thymus gland, tuberculosis, pneumonia or heart is to think of the x-ray and vice versa.—A. L. Kastner, M.D.

INDUSTRIAL SURGERY

The x-ray has been of general assistance in the practice of industrial surgery, but in my opinion a special field in which it has been in usual service, is in the localization of small foreign bodies in the soft parts or bone and further as an aid in the removal of such foreign bodies under fluoroscope.

Its value in the treatment of fractures is too well known to need special comment.—Ernest W. Miller, M.D.

CHEST DISEASES

Used with brains and interpreted with sound judgment, stereoscopic chest plates offer the greatest diagnostic aid in tuberculosis since the discovery of the tubercle bacillus. Indeed, in diagnostic importance, the value of the x-ray exceeds that of the microscope inasmuch as it may contribute much aid to the diagnosis in the *pre-bacillary stage* of the disease—when a correct diagnosis is of most practical value to the patient. It should also be considered as an indispensable adjunct in prognostication inasmuch as it affords exact recording of pathological changes and thence becomes most useful as a yardstick in our therapy. The chronicity of the disease makes employment of some such means of checking one's impressions very important.

The x-ray ranks as "first assistant" in the development of chest surgery in tuberculosis work—from which we now hope for much.—Hoyt E. Dearholt, M.D.

UROLOGY

Radiology is indespensable to the urologist in that pyelography and ureterograms are clearing up many urologic problems, that heretofore were puzzling, and diagnosis was largely conjecture. Care in the interpretation and the manner in which plates are taken are as essential to success as in any other field of x-ray diagnosis. Urologists would regret very much to go back to the days when the radiograph was not part of our equipment.—W. E. Bannen, M.D.

GROUP PRACTICE

The art of correct diagnosis is the greatest achievement of the true physician. Any method of examination or laboratory device which will militate against the chance of diagnostic error is a great boon. Without question the greatest aid to the physician and surgeon today in making a correct diagnosis in any conditions is the intelligent cooperative service extended by a well equipped x-ray laboratory under the direction of

(Continued on page XXII.)

THE JOURNAL BOOK SHELF

The Medical Clinics of North America. Volume 9, No. 1, July, 1925; St. Louis Number. W. B. Saunders Company, Philadelphia and London.

Nephritis. By Herman Elwyn, M.D., Gouverneur Hospital, New York. The MacMillan Company, New York, 1926.

The Medical Clinics of North America. Volume 9, No. 3, November, 1925. New York Number. W. B. Saunders Company, Philadelphia and London.

Our Present Knowledge of Heredity. A Series of Lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1923-1924. W. B. Saunders Company, Philadelphia and London.

Massage and Therapeutic Exercise. By Mary McMillan. Second edition, reset. Cloth, $2.50, net. W. B. Saunders Company, Philadelphia and London.

Lectures on Nutrition. A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington, St. Louis, 1924-25; 12mo; 243 pages, illustrated. W. B. Saunders Company, 1925, Philadelphia and London. Cloth, $2.50, net.

United Fruit Company, fourteenth annual report. Medical Department, United Fruit Company, Boston, Mass., 1925.

A Bipolar Theory of Living Processes. By George W. Crile. The MacMillan Company, New York, 1926.

Collected Papers of the Mayo Clinic, Rochester, Minn., 1925. Octavo of 1078 pages, 252 illustrations. Cloth, $13.00 net. W. B. Saunders Company, Philadelphia and London.

The Surgical Clinics of North America. Volume VI, Number II, San Francisco Number, April, 1926. February, 1926, to December, 1926, 250 pages with 73 illustrations. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

The Surgical Clinics of North America. Volume VI, Number I, Philadelphia Number, February, 1926, February, 1926, to December, 1926, 325 pages with 136 illustrations. Paper, $12.00; cloth $16.00 net. W. B. Saunders Company, Philadelphia and London.

Fractures and Dislocations. By Wilson & Cochrane. J. B. Lippincott Co., Philadelphia.

New and Nonofficial Remedies, 1926, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1926. Cloth. Price, postpaid, $1.50. Pp. 459+XLIII. Chicago: American Medical Association, 1926.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1925. Cloth. Price, postpaid, $1.00. Pp. 90. Chicago: American Medical Association, 1926.

Hay-Fever and Asthma. A practical handbook for physicians and their patients. By Ray M. Balyeat, M.D. Illustrated. The book discusses in non-technical terms the causes of hay-fever and asthma and outlines the routine management for patients suffering from such disease, with specific treatment for different types. Price, $2.00. F. A. Davis Company, Philadelphia.

BOOKS RECEIVED FOR REVIEW

Practical Materia Medica and Prescription Writing. By Oscar W. Bethea, M.D., Prof. of Clinical Therapeutics, Tulane School of Medicine. Fourth revised edition. F. A. Davis Company, Philadelphia, 1926.

The Duodenal Tube and Its Possibilities. By Max Einhorn, M.D., Prof. of Medicine at the New York Post-graduate Medical School; visiting physician to the Lenox Hill Hospital, New York. Second edition, revised and enlarged; illustrated. F. A. Davis Company, Philadelphia, 1926.

The Treatment of Fractures. With notes upon a few common dislocations. Dr. Charles Locke Scudder, M.D., consulting surgeon to the Massachusetts General Hospital. Tenth edition, revised. Octavo volume of 1240 pages, with 2027 illustrations. Polished Buckram, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1926.

Essays in the History of Medicine. By Karl Sudhoff, M.D., translated by various hands and edited by Fielding H. Garrison, M.D., Lieutenant Colonel, Medical Corps, U. S. Army. Volume II of The Library of Medical History, $5.00 postpaid. Medical Life Press, New York, 1926.

Defective Memory Absentmindedness and Their Treatment. By Arnold Lorand, M.D., Carlsbad, Czecho-Slovakia. F. A. Davis Company, Philadelphia, 1926.

Practical Dietetics for Adults and Children in Health and Disease. By Sanford Blum, M.D., Head of Department of Pediatrics, and Director of the Research Laboratory, San Francisco Polyclinic and Post-Graduate School. Second revised edition. Price, $4.00 net. F. A. Davis Company, Philadelphia, 1926.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee, Wisconsin. These new books will be loaned for an inspection period only.

Birth Control and the State. A plea and a forecast. By C. P. Blacker, M.D. E. P. Dutton & Company, 1926, New York.

The practice of birth control by the economically independent portion of a population and the utter lack of it among the constantly increasing dependent group is of serious importance to the state. The author of this little book states the arguments for and against governmental recognition of birth control and points out the

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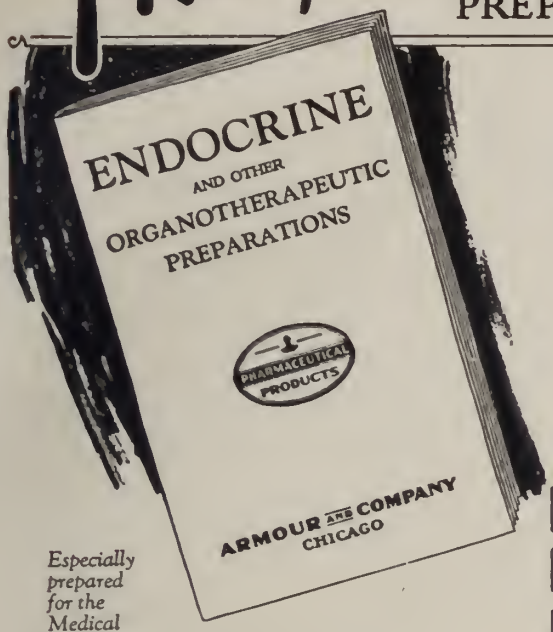

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dangers which now exist in England. He maintains that the solution of the problem must be undertaken by the organized medical profession throughout the world. Modern medicine has interfered with nature's methods of reducing population through pestilence and disease and it should take the first step in the direction of an international control of population and thereby lay the basis for a genuine and permanent world peace.

—C. H. D.

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M. D., Prof. of Diseases of Children, Northwestern University Medical School, Chicago. Volume VIII containing 1102 pages with 388 illustrations and general index to Volumes I to VIII. Cloth, $10.00 per volume. W. B. Saunders Company, Philadelphia and London, 1926.

The concluding volume of this great system of Pediatrics deals with diseases of the skin, eye, ear, hospitals for infants and children, medico-legal matters, tumors, encephalitis, and animal parasites. The high standard of the previous volumes is continued and the subjects are dealt with in an encyclopedic manner. The section on diseases of the skin is especially valuable and material is presented that can be found nowhere else. It is really a textbook of dermatology contained in a system of Pediatrics.

The issuance of the last volume marks an epoch in Pediatric literature and Dr. Abt may well be proud of his work. A comprehensive and useful index to the eight volumes is also issued. R. M. G.

Clinical Pediatrics. By John Lovett Morse, M. D., Prof. of Pediatrics, Emeritus, Harvard Medical School. Cloth, $9.00 net. Illustrated. W. B. Saunders Company, Philadelphia and London.

This volume represents the long experience of one of the foremost teachers of Pediatrics in this country. Dr. Morse is a clinician of marked ability and a shrewd and critical observer. He writes only of those subjects with which he is acquainted, and disregards to a great extent the work of other men, if he himself has had no personal experience with their methods. But there is very little in the domain of Pediatrics that he is not familiar with, and most subjects are very well covered.

Dr. Morse writes with intense conviction and one may feel at times that he is prejudiced and not willing to be convinced of the other side of the question. This is the only criticism that can be directed against his book. But, on the whole, the topics are so well and soundly presented that the volume cannot help but be of value to the physician and student.

The best feature of the volume is differential diagnosis, which is excellent. The style is clear and lucid and the irony and sarcasm sprinkled through the pages make the reading of the book interesting and enjoyable.

Dr. Morse is to be thanked for presenting the end results of his long experience in book form.

R. M. G.

Medical Clinics of North America. Volume X, No. 1. Philadelphia number, July, 1926. Octavo of 260 pages with 24 illustrations. Per clinic year, July, 1926, to May, 1927. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

This issue of the Medical Clinics is filled with instructive case reports and discussions. To mention all those that held the interest of the reviewer would be largely a matter of copying the table of contents. A number, however, deserve special mention.

In this clinic "On the Neglect of Onset Symptoms" Pepper calls attention to the importance of a rapidly developing varicocele as a symptom of neoplasm of the kidney, frequently overlooked.

Until rather recent times medical supervision of employees has been more or less limited to organizations employing large numbers of people. Miller in his article shows that with proper organization and adjustment this phase of preventive medicine can be adapted to the small concern with very definite benefit both to employees and employers. One of the most interesting articles in the book.

"The Importance of Medical Supervision in Hyperthyroidism" by Rose is another article that is very worth while reading.

Tucker in his Bronchoscopic Clinic presents some very interesting cases as does Gilpies in his clinic on Nemosyphicles.—O. L.

Surgical Clinics of North America. Volume VI, number 3. Lahey clinic number, June, 1926. Pages, 214, with 54 illustrations. Per clinic year, February, 1926, to December, 1926. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

The contribution of the Lahey Clinic to the Surgical Clinics of North America consists of a series of well written and well illustrated papers on a variety of surgical subjects, the problems connected with the treatment of toxic goiter being especially well covered. In addition, there are valuable articles on biliary tract disease and its treatment; gastric and duodenal ulcer; the chronic cardiac as a surgical risk, ethylene; spinal anasthesia; and a series of esophageal cases.—S. J. S.

Goiter and Other Diseases of the Thyroid Gland. By Arnold S. Jackson, M.D., Jackson Clinic, Madison. Three hundred pages, one hundred and fifty-two illustrations; price, $10.00 net. Paul B. Hoeber, New York.

This book while neither an intensive nor extensive treatise on goiter is nevertheless a splendid resume of our present knowledge of the subject.

In the chapter on "Etiology" the various theorems are well presented although, according to the reviewer, relatively too much space is devoted to the "Infectious theory," and far too little to the convincing studies of Marine and Kimball.

The classification of goiter presented is a simple one, and because of its simplicity should be of value to the general reader. We agree with the author that the term iodine hyperthyroidism is less confusing than that of Jod Basedow. The warning issued against the indiscriminate and careless use of iodine preparations in the preventive treatment of goiter is pertinent.

The author's plea for the more frequent use of the basal metabolism test in the diagnosis of obscure con-

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ditions should bear fruit. The one big objection, namely that of poor technic, resulting in varying answers, will undoubtedly be overcome with the development of better trained technicians and perhaps some simplification of the test. The reviewer recently had occasion to send one patient to three different laboratories with results that were exceedingly disappointing.

The chapter on the "Heart in Toxic Goiter" presents the phase of the subject in a clear and concise manner.

Any remarks on the surgical treatment as presented in this book would be of little value as the reviewer is absolutely unqualified.

Altogether this book is a splendid concise presentation of the subject. Illustrations are plentiful and to the point; the type sufficiently large as to make reading a pleasure instead of an effort.—O. L.

Cannula Implants and Review of Implantation Technics in Esthetic Surgery. By Charles Conrad Miller, M.D. Description of technic of implantation of living tissues and foreign material through a cannula. One hundred and seventy-eight pages, eleven illustrations. Price, $2.00. The Oak Press, Chicago.

This book by the author of "Cosmetic Surgery: The Correction of Facial Imperfections," is written for specialists in esthetic surgery. It is a gem of science which without doubt will have a prominent place in the library of those practitioners who are interested in the removal of folds, bags, and wrinkles about the eyes, and face-lifting operations.—S. J. S.

Practical Materia Medica and Prescription Writing. By Oscar W. Bethea, M.D., Prof. of Clinical Therapeutics, Tulane School of Medicine. Fourth revised edition. F. A. Davis Company, Philadelphia, 1926.

There have been many changes in this fourth edition of Bethea's well-known book so as to make the text conform to that of the U. S. P. X. Many little used drugs have been deleted from the text. Even with these changes there still seem to be too many drugs described. Drug therapy still holds high place in treatment of the ills to which flesh is heir. A further drastic cut in the number of drugs described, using only those known to have real therapeutic value, would have materially enhanced the worth of the book in the reviewer's opinion. As we are still abject slaves to tradition, yes, even to superstition, such a book must be written by some one in order to placate the Gods of Conservatism.

The medical student should find this present edition of use in his course. We doctors must write prescriptions. The people still demand that we do. Since this is so, the section on Prescription Writing in which many actual prescriptions are fully written out will be of help to the student.

The reviewer misses a description of erythroltetranitrate, a drug which certainly is of as much value as sodium nitrate. He takes issue with the author when he recommends fat-free tincture of digitalis as "probably the preparation of choice with discriminating prescribers." That there is no particular virtue in "fat-free" digitalis is well recognized by those most competent to judge. Digitalin has been shown to have little or no action. Certainly in a dose of $\frac{1}{100}$ grain it is valueless as a stimulant.

It seems to the reviewer that in such a book as this some mention should be made of indications when doses much larger than the average dose must be used. For example, the average dose of morphine sulphate is given as $\frac{1}{8}$ grain, the average dose of strychnine sulphate is $\frac{1}{30}$ grain. There are times when one gives $\frac{1}{2}$ grain of morphine sulphate every half hour for three doses and the reviewer has given $\frac{1}{10}$ grain strychnine sulphate every hour hypodermically for over twenty doses. Emphasis should be laid on the principle to give a drug to its physiological effect as rapidly as possible. As soon as this effect is seen then cease the administration of the drug.

We hope to live long enough to see a book written on Drug Therapy describing less than fifty drugs and recommending doses which will produce some physiological action. As this has not been done yet we can recommend Dr. Bethea's book as a safe guide to the student of medicine. The volume is well printed and the indices are most complete.—L. M. W.

The Modern Treatment of Hemorrhoids. By Joseph Franklin Montague, M.D., University and Bellevue Hospital Medical College, New York. One hundred and sixteen illustrations. Price, $5.00. J. B. Lippincott Company, Philadelphia and London.

Very unfortunately, hemorrhoids are generally considered as a purely surgical condition. They occur, however, in many if not most instances, as a manifestation or sequence of medical disease, and their early management falls very largely to the general practitioner or internist. All too frequently they are considered as a disease entity, while as a matter of fact they are ordinarily a result of disturbed physiology, which covers a very wide range of general as well as local pathology. Dr. Montague has recognized this important fact to a most unusual degree, and it is this in particular which characterizes his monograph and renders it of exceptional value to every physician. Montague also stresses the point that many cases are amenable to medical treatment, a fact long recognized but rarely proposed in the literature of the subject.

The book is an exhaustive and thoroughly scientific study of the subject and the matter is presented in such form as to make its utilization entirely practical for any physician, medical or surgical.

A large number of photographs and diagrams are used to illustrate the book. A comprehensive bibliography is a valuable feature.—S. J. S.

Surgery of Neoplastic Diseases by Electrothermic Methods. By George A. Wyeth. M.D., New York. One hundred and thirty-seven illustrations. Price. $7.50. Paul B. Hoeber, New York.

I find this book so interesting and full of so much important clinical and surgical material that instead of examining it casually for a review, my interest in it impelled me to not only read the book through from cover to cover, but to reread many chapters for the important information therein contained. Dr. Wyeth's text-book on Endothermy in the Treatment of Neo-

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A Challenge to Medical Statesmanship*

BY GLENN FRANK

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I realize that as president of a university I am expected to fall into the prevalent habit of the artificial and manufactured omniscience of administrative officers. I know the widespread practice of presidents of almost everything, except medical societies, of having very clever secretaries or corps of secretaries who can get up a good speech on any conceivable subject under the sun, but I have had several unhappy experiences with that, and so I have decided to stick to my own guns tonight. While I am going to speak specifically on a medical problem, I am going to speak solely as a layman looking at it from the sidelines.

Theological difficulties are sometimes ironed out in unexpected ways. It was a crisp November afternoon. The tonic wine of autumn was in the air, making for clearness of mind and healthiness of outlook. The presidents of half a hundred American universities had come together for mutual sympathy and counsel. The fundamentalist-modernist controversy was at fever heat. These presidents were concerned over the possibility of a popular movement that might compel the voice of science to echo the vote of the majority.

"Do you believe in hell?" asked one president of another.

"Why shouldn't I?" replied the other president. "I am just launching a medical school at my university."

The rather widespread reputation of medical schools as seed beds of dire difficulties for administrators is not due, I am sure, to there being more prima donna temperaments among doctors than among engineers and lawyers, but grows naturally out of the fact that the world of medicine is today in the throes of a far-reaching readjustment.

The historian of medicine will look back upon the period following 1875 as the time of the Medical Revolution, as the historian of industry looks back upon the period following 1779 as the time of the Industrial Revolution. In both instances new forces came into the field destined to alter profoundly the prevailing policies and procedures. I want to speak briefly tonight of the causes of this Medical Revolution, of some of its implications, and of the challenge to medical statesmanship it flings down to the members of the medical profession.

A MEDICAL REVOLUTION

If I may generalize very broadly, this Medical Revolution has been brought about by the entry of the science of medicine into a field before occupied in the main by the art of medicine. Medicine is admittedly both an art and a science. And the Medical Revolution will not bear its full fruit until, as a result of its readjustments, in both the practice of the physician and the program of the profession, the best in the art of medicine and the best in the science of medicine meet and merge. But revolutions are treacherous adventures unless they are engineered by men who possess both the hindsight of the historian and the foresight of the statesman. In revolutions—whether political, industrial, or medical—we always run the risk of throwing on to the scrap heap the eternal as well as the obsolete elements of the old order. And I am not at all sure but that in the necessary promotion of the science of medicine we are today in danger of losing some of the very precious values developed in the practice of the art of medicine over the generations. The "old doc" of the sick room as well as the "super doc" of the laboratory must be reckoned with in any sound development of medicine.

Old doc—I use the term in affectionate admiration—will always keep a tight hold on the heartstrings of humanity. Just the other night I reread Opie Read's whimsical picture of the "old doc" as he knew him in the South of an earlier day. Let me share with you the pleasure I had in re-reading it.

"His house was old, with cedar trees about it,

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a big yard, and in the corner a small office. In this professional hut there was only one window, the glass of which was dim with dust blown from the road. In the gentle breeze the lilacs and the roses swapped their perfume, while the guinea hen arose from her cool nest, dug beneath the dahlias, to chase a katydid along the fence, and then with raucous cry to shatter the silence. The furnishings of the office were less than modest. In one corner a swayed bed threatened to fall, in another a wash-stand stood epileptic on three legs. Nailed against the wall was a protruding cabinet, giving off sick-room memories. * * * To go into his office and to come forth with no sign of heaving was a confession of the loss of smell. Sheep-shearing fills the nostrils with woolly dullness, but sheep-shearers could scent old doc as he drove along the road.

"In every country the family physician is a natural sprout from the soil. His profession is almost as old as the daybreak of time. He bled the ancient Egyptian, blistered the knight of the Middle Ages, and poisoned the arrow of the Iroquois. He has been preserved in fiction, pickled in the drama, spiced in romance, and peppered in satire; but nowhere was he so pronounced a character as in the old South. He knew politics, but was not a politician. He looked upon man as a machinist viewing an engine, but he was not an atheist. He cautioned health, and flattered sickness. He listened with more patience to an old woman harping on her trouble than to a man in his prime relating his experience. His books were few, and the only medical journal found in his office was a sample copy. When his gathered lore failed him, he was wise in silence.

"At no place along the numerous roads traversed by old doc was there a signpost with a finger pointing toward the attainment of an ultimate ambition. No senate house, no woolsack of greatness, waited for him. The chill of foul weather was his most natural atmosphere; and should the dark night turn from rain to sleet, it was then that he heard a knock and a 'Hello!' at his door. Down through the miry bottom-land and up the flint hillside flashed the light of his gig-lamp, striking responsive shine from the eye of the fascinated wolf. The farther he had to travel, the less likely he was to collect his bill. Usury might sell the widow's cow, for no one expected business to have a daintiness of touch; but if Doc sued for his fee, he was met even by the court with a sour look."

Blessed be the memory of old doc! He may have been poor in scientific knowledge, but he was rich in human insight. He may have been awkward in handling test-tubes, but he was an adept in handling patients. He knew, without learning it from book or lecture or laboratory, the subtle interdependence of mind and body. His sick rooms were secular confessionals in which he practiced a rare priesthood. He was a psycho-analyst before the days of psycho-analysis. His deficiencies were many, but, according to his light, he was an apostle of the art of medicine. Modern medicine must perfect his technique and widen his knowledge, but it must not lose his spirit. Old doc, brought down to date, gives us a physician who knows how to link the learning of the laboratory to the life of the patient, making that learning bring caution to men in radiant health and cure to men in the shadow of sickness.

For a long time old doc held the field. The art of medicine was dominant. And then the winds of a new critical and scientific spirit began to blow across the world. That spirit crossed all frontiers and on unseen wings flew through the closed doors of dogmatism and self-satisfaction everywhere until the whole of modern life was touched by it, medicine along with other fields. To-day the science of the study of disease is slowly but surely transforming the world of medicine.

I shall not undertake to analyze or describe the innumerable studies, the varied sciences, the extensive researches, and the new techniques that are to-day exerting an influence upon and playing a living part in the evolution of modern medicine. And for two good reasons: First, because I am a stranger to the detailed facts of modern scientific medicine; second, because it would be an old story to you, even if I were qualified to tell it. My business tonight is a simpler undertaking, and one a layman may, perhaps, venture upon without too great presumption.

THE IMPLICATIONS

I want to deal with just one question tonight: What are the implications of this Medical Revolution for the average man in the private practice of medicine and for the schools and hospitals in which we are training men for the private practice of medicine?

I think we shall get some lead for an answer to

this question if we study the new Medical Revolution in the light of the old Industrial Revolution. For it seems to me that the private practitioner of the art of medicine, face to face with the public promotion of the science of medicine, is in very much the position of the handicraftsman, when, at the dawn of the Industrial Revolution, he stood face to face with the introduction of machine power in industry.

The parallel is, I think, both accurate and illuminating.

The handicraftsman, both in himself and in his system, had many virtues and many values that society could ill afford to lose as it moved over from a pre-machine to a machine industry.

The private practitioner of the art of medicine, both in himself and in his system, has many virtues and many values that medicine can ill afford to lose as it moves over from a pre-scientific to a scientific basis.

Because there was not enough industrial statesmanship among the handicraftsmen, the evolution of industry got out of hand, many of the best values evolved by the handicraftsmen through the centuries were lost, and a vast high-powered industrial machine subjected the handicraftsmen to a ruinous competition they could not meet.

In like manner, unless adequate medical statesmanship is brought to bear upon the direction of the present Medical Revolution by the men now in the profession, we may lose many of the best values evolved by the old practitioners of the art of medicine, and it may happen that a vast high-powered medical program and organization, under the sponsorship of industries, insurance companies, and governments will enter the field and subject the private practitioners of medicine to a ruinous competition they will be unable to meet.

THE TREND WITHOUT STATESMANSHIP

Let me indicate what seems to me the inevitable direction in which things will move in medicine in the absence of a genuine medical statesmanship on the part of the profession. One of the outstanding signs of the times is a increasing interest in the prevention of disease. A growing determination to rid society of the waste and inefficiency due to disease is rapidly becoming one of the social passions of the period. This determination is heading up into certain very definite public and quasi-public movements that have very intimate implications for the medical profession. Let me suggest the source of three such movements.

In 1909 it was estimated that 3,000,000 persons were seriously ill at all times. This meant an annual loss of thirteen days per person on account of illness. It was estimated that 42 per cent of this illness was preventable. Since 1909 we have cut this loss from thirteen days per person to something between eight and nine working days per person. About 42,000,000 persons are classed as gainfully employed in the United States. When these lose something over eight days each annually from illness disabilities, including non-industrial accidents, it means that the people gainfully employed in the United States annually lose 350,000,000 working days. So much for the loss of working time from disease.

Of the 500,000 workers who die each year, it is considered probable that one-half of the deaths are postponable, by adequate medical supervision, by medical examination, by health education, and by community hygiene.

Going on the very conservative assumption that the average life—aside from its human values—is worth to industry, say, $5,000, and estimating the cost of special diet, nursing, and medical attention needed by a sick man conservatively at $3 a day, the present economic loss from preventable disease and postponable death reaches the staggering total of $1,800,000,000 that must be annually borne by those gainfully employed in the United States.

On the basis of the most dependable research available, I venture the opinion that this loss could be cut to a point where, over and above the costs of prevention, a balance of $1,000,000,000 annually could be left in the pockets of the working population and industries of the United States.

It is obviously only a question of time until the growing enlightenment of the leadership of labor and the intelligent self-interest of industry will set about seeing to it that this unnecessary loss is stopped. Much has already been done by industry. But as yet only the surface of possibility has been scratched. And you may be sure that when the forces of labor and the forces of industry get fully under way in a determined effort to lift from labor and industry this burden of loss from preventable disease and postponable death, they will not be concerned primarily with the effect of their program on the private practice of medicine.

There is, again, the probability of further and

further adventures in disease prevention and life prolongation by the big insurance companies. Here again a powerful private economic interest will be the driving force back of the program. And here, as in the case of labor and industry, you may be sure that the big insurance companies will not be primarily concerned with the effect of their program on the private practice of medicine.

In addition to these powerful private economic interests making for vast programs of disease prevention, there is a growing social conscience respecting the issues of health and disease, a growing social conviction that the health of the social order is dependent on the health of its citizens.

GROWING SOCIAL CONSCIENCE

We seem to be well on the way toward the drafting of a new definition of treason. The American public is gradually coming around to the contention of Lord Palmerston that for every death from typhoid somebody should be hanged. We are, perhaps, not far from a time when the first test of every industry shall be its reaction upon the health of its workmen. No industry is profitable to the nation if it shortens the lives and stunts the bodies of its workmen, and some day we shall look upon the head of such an industry as a traitor to the state, although he may be a highly respectable citizen who has done valued service in tracking down radicals who have spoken slightingly of the Constitution. Sooner or later we shall test every educational system by its reaction upon the health of its students. Its buildings, its curriculum, its teaching methods, must conspire to conserve the student's health while he is in school and must teach him to preserve it after he leaves school. It may not be fantastic to think that some day we shall insist that grocers and cooks, before they are allowed to practice their professions, must know something about the relation of the distribution and preparation of foods to the health of the American family. Some day we shall realize that an architect whose building is not conducive to health is a bad architect despite the beauty he may have captured in the lines of his structure.

The heads of industries that blight the health of workmen, educators who forget the body in the training of the mind, grocers and cooks who are salesmen and servants only, architects who have not learned that a building must be useful before it can be beautiful in a social sense—all these will some day be regarded as biologic traitors.

Here, again, we have the beginnings, in fact, more than the beginnings, of a vast popular movement which, when fully under way, will not consider its program primarily in terms of its effect on the private practice of medicine.

In short, there are to-day lying all about, as yet uncorrelated, many if not most of the raw materials for a vast system of state medicine or its equivalent in the corporate medical activities of industries, insurance companies, and the like. Now, personally, I dislike to see fall into the hands of government any activity that can be done equally well or better by one of the great functional groups of men as they go about their daily work in their trades or professions. And so, I raise the question: Is private medicine to be swallowed up by state medicine or its equivalent? The answer to this question will, I think, depend entirely upon the quality of medical statesmanship displayed by the medical profession during the next few years. It would be presumptuous of me to undertake to discuss in detail anything save the broader aspects of the sort of medical statesmanship to which the present situation challenges the medical profession. I can speak only from a layman's observation, not from a specialist's knowledge. But a few things seem fairly obvious.

NEED FOR LAY EDUCATION

I suggest that under adequate medical statesmanship the rank and file of private practitioners of medicine must excel industries, insurance companies, and governments in their zeal for the promotion of preventive medicine. That is to say, under adequate medical statesmanship, the men in the private practice of medicine will deliberately set out to educate their clientele to look to physicians primarily for the care of health rather than for the cure of disease. Unfortunately the American people still look upon doctors mainly as experts to be called in emergencies. On account of this short-sightedness of the American people, doctors actually have a vested interest in ill health instead of a vested interest in good health. The prevailing attitude of the people toward doctors actually puts a premium upon disease rather than upon health. In the main, doctors still secure their income from curing sick folk, not from advising well folk how to keep well. The tendency toward retaining doctors as health advisers is growing, but it is still a tiny tendency that affects the total health problem only slightly.

Do not misunderstand me. No man in America recognizes more fully the wasteful insanity of making doctors healers of disease rather than protectors of health than does the doctor himself. But until the American people are educated out of an attitude that obliges doctors to make the major part of their income from attending cases of sickness, our only hope of a healthier nation lies with the unselfish doctor who will consciously reduce his income by foisting upon sick patients health advice that will tend to keep them from falling sick again. And, mark you, he must usually give this preventive advice as a side issue to medical attention, which means giving it to a sick patient whose mind, at the moment, is more upon his immediate plight than upon the future regulation of his habits. The doctors are not to blame. The people are. Our national motto seems to be: Millions for pills, but not one cent for prevention.

If the medical statesmanship of the medical profession could so change the mind of the American people that the average American would look to his doctor for the care of health rather than for the cure of disease a wholly new order could be established in the world of medicine. A time would eventually come when every family in America would secure its doctor's services by the year instead of by the case or visit. Payments would be made monthly, quarterly, semi-annually, or all at once. For such payment, the doctor could render a standardized and comprehensive service including a physical examination of every member of a family at least twice a year, at least a semi-annual examination of the house and grounds with advice on matters of ventilation. sanitation, food, clothing, and the like, as well as attendance on all cases of sickness in the family except cases requiring the services of a surgeon or a specialist.

Many of the ablest doctors in America have told me that in their judgment such a system would make possible many desirable things that are now impossible. I list a few such things as they have been suggested to me by distinguished members of the medical profession.

Families would call the doctor at the first hint of sickness. No money consideration would enter. It is human nature to make full use of a thing that you know you will have to pay for anyway.

The doctor would have the advantage of early attention to all cases.

The doctor could call as often as necessary. No one could accuse him of fee hunting. He could stick to a case as long as necessary.

And in the judgment of many distinguished doctors such a system would mean not only a vast saving for the people in general but would actually increase the income of the average American physician.

All this, I remind you, can only be brought about in one or the other of two ways.

First, it can be brought about as a result of a nation-wide, deliberately organized, and persistently promoted educational campaign on the part of the men in the private practice of medicine to change the attitude of their clientele toward doctors, to induce the American people, as I have already said, to look to doctors for the care of health more than for the cure of disease.

Second, it can be brought about by a vast high-powered organization of state medicine or its equivalent.

LEADERSHIP OR STATE MEDICINE

This transformation of the attitude toward doctors and the service of doctors is bound to come. In my judgment, it lies with the doctors themselves to say by which way it shall come. If the medical profession itself does not lead and administer this transformation, it will inevitably be led and administered by industries, insurance companies, and states.

I suggest also that under adequate medical statesmanship the rank and file of private practitioners of medicine must see to it that the medicine of the future shall swing neither to the extreme of an unscientific art of medicine nor to the extreme of an inartistic science of medicine. In other words, the art of medicine and the science of medicine must be fused in the medicine of the future. And adequate medical statesmanship will seek to effect this union of the art of medicine and the science of medicine, first, in the person and practice of the average physician, and second, in the organization of the medical forces of the state.

This union of the best in the art of medicine and the best in the science of medicine in the organization of the medical forces of a state will mean, I think, certain obvious things:

It will mean that the members of the medical practitioners throughout the state, having perfected in themselves to the best of their ability both the art and science of medicine, will take the

initiative in both the creation and support of great medical schools and great hospitals at strategic locations as centers from which the men engaged in the daily practice of medicine may keep constantly in touch with the latest results of research, at which they may periodically refresh their knowledge and perfect their technique through lectures and clinics, and, at which they may find an extent of equipment and an expertness of assistance which the average practitioner may not be able to afford or to support.

Adequate medical statesmanship will create and sustain such centers of training, research, and assistance for the further reason that the very existence of such centers of scientific medicine will give to the whole medical profession of a state and to its clientele a psychological sense of assurance that any emergency may be met without their having to cross the continent—all these centers developed as supplements to, not substitutes for, the practicing medical profession of the state.

I believe that if the medical profession of any state boldly and aggressively fosters a program, first, of education among patients inducing them to look to doctors primarily for the care of health rather than for the cure of disease, and second, of cordial and constant cooperation with the schools and hospitals in which the finest fruits of scientific research are made available, then two results are inevitable:

First, both the prestige and prosperity of the medical profession throughout the state will be increased.

Second, the medical profession will itself have met, by its own statesmanship, a vast social issue which, in the absence of such medical statesmanship, will inevitably be taken in hand by industries, insurance companies, and states.

Some Remedies—Good, Bad, and Indifferent*

BY BERNARD FANTUS, M.D.
Chicago

Whether a remedy is good or bad depends upon the way we use it; though there are some remedies that are mostly good, some that are mostly bad.

CALOMEL

Thus, calomel is of value when bowel evacuation is aimed at in the presence of vomiting—because it does not irritate the stomach and is nearly always retained. It is also valuable in diarrhea, as an evacuant at least if not as an intestinal antiseptic, which latter action is doubtful. It is decidedly useful in the symptom complex known as "biliousness" for reasons not well understood. It is harmful, on the other hand, in spastic constipation, as it increases pain and tenesmus. It is dangerous in intestinal obstruction, not only as dangerous as are all other cathartics, but more so because of the danger of mercurialism. Calomel should, therefore, never be used when constipation is accompanied by pain in the bowel. Because of danger of mercurialism, it should never be employed as a habitual cathartic. It should never be used simply as an evacuant. We have so many others that are safer and better. The new pharmacopoeial name of the compound cathartic pills, namely "compound pills of mild mercurous chloride" will probab'y render these pills less popular, which will be all the better for the people.

LIQUID PETROLATUM

Liquid petrolatum presents a marked contrast to calomel in that it is mostly a good remedy. It is decidedly useful in the painful constipation of the spastic colon and of colitis. In such cases, it can be used habitually, if required, without any likelihood of harm. Some women refuse to take the oil for fear of becoming stouter. This fear is, of course, groundless, as the oil is absolutely indigestible. Indeed, if one wishes to have the patient gain weight, olive oil in liberal doses is much better than petrolatum: that quantity of oil used in excess of the patient's digestive capacity acting as a laxative just like the mineral oil. I wonder if the use of liquid petrolatum is not lost sight of in cookery for the obese.

Petrolatum is useful in certain cases of abdominal pain, even if not accompanied by obvious constipation, especially if the pain is predominantly located in the left side of the abdomen. Such pain is frequently due to spasticity of the colon; and, though the patient may have one or even more bowel movements daily, the material

*Presented at the 85th Anniversary Meeting of the State Medical Society of Wisconsin, Madison, Sept. 15, 1926.

evacuated should have been passed a day or two earlier, having been retained by spasm.

LAXATIVE SALINE

In pain located in the right side of the abdomen, on the other hand, petrolatum may be disappointing, and salines of use. The reason for this probably lies in the fact that the contents of the intestine to the right of the midline are mostly liquid and that petrolatum exerts its beneficial action only in those portions of the bowel, that have to deal with formed fecal matter, by keeping the mass softer and more plastic. The salines, on the other hand, not only keep the material fluid, but also hasten its propulsion through the bowel, as is evidenced by the fact that they may produce an evacuation within an hour or two. In other words, they somehow favor intestinal drainage. This probably explains their value in cholecystitis and in chronic appendicitis.

The utility of the "Karlsbad cure" in certain cases of gall bladder disease cannot be questioned, nor that a sufficiently close imitation of the factors involved leads to beneficial results even when used at home. Of late, biliary drainage by the introduction of magnesium sulphate solution by means of the duodenal tube has been exploited as giving good results in cholecystitis. Now while I have not the least idea to question the results, I submit that we secure biliary drainage every time we place fatty food into the duodenum. Cholecystography shows that a meal rich in fat causes evacuation of the gall bladder. Having a patient take six meals a day instead of three, just doubles the biliary drainage. If, in addition to this, we have the patient take a cupful of hot cathartic mineral water one-half hour before the larger meals, we improve biliary drainage by increasing the amount of bile secreted, and by clearing it out of the bowel. Habitual use of the duodenal tube is, of course, out of the question. More or less habitual use of dietetic-saline drainage is entirely practicable.

We know less about the evacuation of the appendix. Valuable opportunities for study are wasted right along by our being satisfied with the roentgenologist's report that the appendix empties itself slowly, instead of taking the next step and determining what may induce such an appendix to empty. Clinical results suggest that laxative saline, used as in the "Karlsbad cure," is also of value to many individuals suffering from a handicapped appendix. Far be it from me to advocate this treatment in acute appendicitis or for sufferers from frequent severe attacks of gall stone colic in lieu of operation. But in so-called "chronic appendicitis," operative results are notoriously unsatisfactory, and persons suffering from minor gall bladder disturbance or with attacks of gall stone colic at long intervals can rarely be induced to submit to surgery. It is in just such cases that medicinal treatment is of value; and the more welcome the more doubtful the diagnosis. In such cases I have for years employed with satisfaction a modification of the Karlsbad salt composed of sodium citrate, 1 part, sodium bicarbonate, 2 parts, sodium phosphate, 4 parts, that seems as efficient as and is more palatable than the Karlsbad salt, which contains sodium chloride, bicarbonate, and sulphate. A teaspoonful of the salt is taken in a cupful of water, *as hot as one can drink it,* three times daily half hour before each meal. As the patient improves, one dose a day—usually taken first thing in the morning—suffices; but this may have to and can be taken for a very long time. The quantity of the salt used is regulated so that the patient has at least one and not more than two bowel movements a day.

CHALK

Chalk is a good remedy with hardly any drawback. Epigastralgia—pain in the region of the stomach—relieved by the ingestion of food, be it due to hyperchlorhydria or gastric ulcer, can be alleviated by alkali. Sodium bicarbonate, the alkali most commonly employed, while it relieves temporarily, is notoriously unsatisfactory. It has no curative value whatever because not only is the sodium chloride produced by reaction with the hydrochloric acid irritant, but excess of the alkali is likewise irritative. On the other hand, calcium carbonate is just as efficient in neutralizing acid and excess of calcium carbonate—say a level teaspoonful, taken midway between feedings—is soothing and protectant, therefore curative in its effect. Its only disadvantage is its constipating tendency which can be corrected by the use, first thing in the morning, of a sufficient dose of milk of magnesia or magesium oxide. This is very much simpler and I believe more rational than the use of the two different "Sippy powders" (composed respectively of 0.60 gm. each of sodium bicarbonate and bismuth subcarbonate

and of sodium bicarbonate and heavy magnesia), given alternate hours, and it accomplishes the same results. Of course, its use must be accompanied by a soothing diet given sufficiently frequently—every 2 or 3 hours—and to secure anything like lasting results, the treatment must be continued for many months, let us say at least three months after the last twinge of pain, to be resumed promptly in case of recurrence and continued even longer. The early prompt and faithful employment of this simple treatment in cases of "hunger pain" would probably save many a patient from an operation for gastric ulcer.

The use of chalk in infantile diarrhea with acid stools is too well established to require discussion. It may not be so well known, that the new pharmacopoeia has changed the formula of the chalk mixture so as to render it permanent even in hot weather, the time of the year when this medicine is especially prescribed. The acacia and the sugar, which it formerly contained and which made it fermentable, have been eliminated; and glycerin substituted as the sweetening agent.

ALCOHOL

As an instance of a remedy that is generally bad, alcohol may be mentioned. The main reason for the therapeutic use of alcohol is as a "euphoric," i. e., a remedy to make the patient feel better. This is, of course, just what the patient wants. There are, however, very few conditions in which the use of alcohol is followed by real improvement; there is not one in which it really cures. It merely benumbs the mind, while the disease runs its course. Thus, it may be useful to lessen suffering in incurable conditions and in old age; just as it is possibly useful to render more tolerable the incurably bad social conditions of the majority of people inhabiting war despoiled Europe. But merely to make the patient feel better, while the disease runs its course unchecked, not only is not curing but it is creating another disease, namely alcoholism: for as soon as the patient stops the use of the liquor, his previous distresses manifest themselves, often in aggravated form; and the very virtue alcohol has in making one feel better leads to habitual use with all its well known evil consequences. I believe there is no place in therapeutics for alcohol. What is true of alcohol, is also true of opiates. The less a doctor is capable of curing, of giving real relief, the more he is in need of such remedies as alcohol and opiates. Therefore the less alcohol or opiates he requires in his practice, the better a doctor he is. In this country, this is true in more senses than one. For certainly the physician who prostitutes his legal right to such an extent as to prescribe alcohol for revenue only is not a good, an ethical doctor, is a disgrace to his profession. (Applause.) It is time for those medical men who are self respecting to emphasize this fact by not charging for liquor prescriptions in those few instances in which they may find it necessary to resort to them. We are not in the business of dispensing liquor.

BENZYL BENZOATE

As an example of a remedy that is, to say the least against it, indifferent, may be mentioned benzyl benzoate and its compounds. It was introduced into therapeutics on the basis of misintepreted pharmacodynamic experiments. There is no doubt that benzyl relaxes involuntary muscle fiber of all kinds when the organ removed from the body is immersed in or perfused by a solution containing it, but the same thing does not happen to any extent in the intact body from therapeutic doses. In a similar way, potassium is a muscle and nerve depressant when isolated tissue is exposed to it; but no such depression occurs from its peroral employment. The sky-rocket-like rise and fall of the popularity of benzyl benzoate and its compounds is a striking example of how eagerly humanity hails a promising remedy, and that only real worth can secure its general and continued use. It had been added to the new pharmacopoeia and a special elixir for its administration devised, only to be deleted shortly before the publication of the book, because it had been found disappointing.

That an alleged remedy is new should be a cause for scepticism rather than a recommendation for it. Only after a consensus of unbiased competent authority has expressed itself in its favor, should the physician of the rank and file employ it for his patients. Among such newer remedies, worthy of confidence and use, may be mentioned: albumin tannate, amidopyrine, phenobarbital, carbromal, calcium iodobehenate, quinine ethyl carbonate and epinephrine. All of these have been added to the new pharmacopoeia. Neocinchophen, which has not yet been given this recognition, should also be named here.

ALBUMIN TANNATE

Albumin tannate, an almost insoluble yellowish-

white powder, also known as "tannalbin," is a good intestinal astringent of use in diarrhea, especially that characterized by profuse watery evacuations, when given in doses of at least 2 gm. and repeated sufficiently often, e. g., after each diarrheal evacuation.

NEOCINCHOPHEN

Neocinchophen, also on the market under the names of "novatophan" and "tolysin," is a useful mild analgesic, most especially against rheumatic pains. It is superior to cinchophen or atophan, in that it is tasteless and does not produce gastric disturbance. It is generally much better borne than acetylsalicylic acid (aspirin), and probably quite as efficient in doses of 0.3 to 0.5 gm. given hourly, if required.

AMIDOPYRINE

Amidopyrine, or "pyramidon," is as good an analgesic as antipyrine, acts in smaller dosage, and is less liable to produce untoward effects. It is therefore the better remedy. It usually gives satisfactory results when administered in doses of 0.2 to 0.3 gm. several times daily. If it does not, its analgesic action can be much intensified by combination with codeine phosphate, 0.03 gm., or with phenobarbital, 0.03 gm., or both.

PHENOBARBITAL

Phenobarbital, an almost insoluble powder, also known as "luminal," is one of the most efficient hypnotics yet produced. Given in dose up to 0.3 gm. it is almost as reliable as chloral, but without its disagreeable taste and its local irritant action. It lowers blood pressure decidedly, which in doses of 0.1 gm. three times daily makes it useful as a sedative in cases of high blood pressure. It has given excellent service in epilepsy.

CARBROMAL

Carbromal, also known as "adalin," insoluble and almost tasteless, stands at the other extreme of the sedatives, being very mild and quite harmless. It is somewhat more potent than bromide, for which it forms an admirable succedaneum, when bromides are not well borne. It relieves quite a variety of distresses of nervous people, such as palpitation, anxiety states, and insomnia, when given in doses of 0.3 to 1.0 gm. I have found it particularly effective in nocturnal palpitation.

CALCIUM IODOBEHENATE

Calcium iodobehenate is unfortunately the official name for "sajodin" or "calioben." It is the calcium salt of an iodized fat, and serves as a useful administration form of iodide for children: it being insoluble and almost tasteless. Mixed with sugar, to which 10 per cent of powdered cacao has been added, it makes a palatable powder; and, when compressed into tablets, veritable candy medication. Its dose for the adult is from 0.5 to 1 gm.; for children in the usual proportion. Thus it serves admirably in goiter prophylaxis and as an expectorant.

QUININE ETHYLCARBONATE

Quinine ethylcarbonate, or "cuquinine," is an administration form of quinine especially suitable for children, in that it is practically tasteless. It should not be masticated or triturated, as its bitterness is thereby developed.

EPINEPHRINE

Epinephrine, or "adrenalin," is too well known to require much discussion. The U. S. P. recognizes it and its 1:1000 solution, the latter under the title *solution of epinephrine hydrochloride.* This solution injected intramuscularly in doses of 0.5 to 1 c.c. is so efficient in the treatment of spasmodic asthma that patients ought to be taught its self administration. In the treatment of collapse it is of no use when given by mouth. Given subcutaneously it is liable to produce necrosis. It may do some good, if the solution of epinephrine is given intramuscularly in doses of 0.5 to 1.0 c.c. at hourly intervals. It is distinctly dangerous to give such doses intravenously unless they are greatly diluted and administered very slowly. Only, when it is all or nothing, is the intracardiac injection of 1 c.c. of epinephrine solution admissible. Thus epinephrine is an example of a remedy that may be good or bad according to the mode of its administration.

Time will not permit to continue this presentation any longer, especially as a discussion by the members is desired. While some of us may write and talk too much, there are many physicians of vast experience and valuable knowledge, who do not write and talk enough. It ought to be considered a point of duty for every doctor, as he gets old, to bequeath to his profession to which he owes so much, a summary of his judgment on the value and use of remedies. It would be appalling were it fully realized what an enormous amount of invaluable information is irretrievably lost by being

sealed up in the graves of the literarily inarticulate portion of the medical profession.

DISCUSSION.

Dr. A. S. Loevenhart (Madison): I want to express my appreciation for the kindness of Dr. Fantus in coming up and talking to us on this subject. We have all had the pleasure, in recent months, of seeing his special feature articles in the Journals of the American Medical Association, and we know how much he has to give us along the line on which he has been addressing us today. These articles, I understand, are to be published in book form and they are going to be invaluable to us all.

There are a few points that Dr. Fantus touched on that I should like to say a word about. The first is the use of calcium carbonate as an alkali. I completely concur with what he said, but I should like to amplify his statement slightly. Calcium carbonate as an alkali is only a potential alkali, it is only an alkali in the presence of acid. It has the power to neutralize acid, but in the absence of acid it is insoluble and is not an alkali; it is an insoluble salt of carbonic acid. So we cannot give calcium carbonate in excess, as he said, because it is only an alkali in so far as there is acid there to be neutralized.

It has the coating power of bismuth salts. Bismuth subnitrate should never be used, in my mind. Bismuth subcarbonate is a better salt entirely free from the possibility of being reduced to nitrites in the intestines, far preferable to bismuth subnitrate. But all of these are useless if you use calcium carbonate, because it is an insoluble powder which tends to coat over the ulcer and serves all the purposes.

Sodium bicarbonate can be given in excess because it is soluble, and you can produce an alkalosis, marked alkalinity of the urine, precipitate of phosphates in the urine in crystallized form as gravel, which when passed causes a great deal of pain and blood in the genito-urinary tract in passing. I have seen this happen. I know of several cases that have occurred. Sodium bicarbonate, therefore, is not a proper drug to use in these cases of hyperacidity, although it does give slightly quicker relief than calcium carbonate, but it is only a matter of minutes.

Dr. Fantus spoke about the physicking effect of calcium carbonate. I have had that experience also. Many patients are rather physicked by it, and the reason, to my mind, is that it increases the bulk of the stool. It is insoluble, passes out and acts as other insoluble material in the intestine, and thus tends to increase the activity of the bowel, just as agar and mineral oil and other insoluble, indigestible materials do.

Magnesium as contained in the Sippy powders is bad because in many cases these patients do not need a purgative and it tends to produce, on long continued use, colitis. It produces an irritable colon and is bad for that reason. The magnesia should be added to calcium carbonate only when purgative effects are desired.

The benzyl benzoate proposition that Dr. Fantus talked about I agree with. A great mistake was made there in transferring from the laboratory to the clinic without clinical evidence. The final test of all drugs must be made in man, and anyone who fails to realize this is apt to make a great mistake. Benzyl benzoate should never have been placed before the profession until it had been given sufficient clinical trial to justify it. If favorable results from the laboratory are accepted without thorough clinical trial before placing it on sale it will result in an immense waste of time, money and effort. It should be first tried out by a selected group in well organized clinics where results can be carefully controlled.

In therapeutics control is a most difficult thing. What would the patient do without the remedy? We know very little about that in many instances. We tend to treat all cases the best we know how. We need controls, and we can get controls without jeopardizing the interests of any of our patients.

Barbital was introduced and used for many years as a hypnotic; it is an excellent hypnotic. Then phenobarbital came out and was found to be a splendid drug in the treatment of epilepsy. Since it has the power of depressing the motor cortex in epilepsy, it was looked upon as a great depressant of the central nervous system. It is, but the two drugs differ in the fact that one contains the phenyl group and the other contains the ethyl group. One is diethylbarbituric acid and the other is ethyl-phenylbarbituric acid. The latter substance is especially effective as a depressant to the motor side and not the psychic or sensory side. I think the barbital is a better drug as a soporific. If you give phenylbarbital as a plain soporific, you produce too much depression, too much hang-over the next day.

Dr. J. A. Capps (Chicago): Dr. Fantus said nothing about the choleate series. I would like his opinion about the value of the various bile salts in producing an increased flow of bile.

Some time ago a splendid piece of experimental work was done by Prof. Pfaff on cholagogues on a patient who had a biliary fistula. All the bile flowed from the bile ducts directly into a bottle, rendering it possible to measure all the twenty-four-hour quantity of the bile and to take its specific gravity and measure all the salts. All the so-called cholagogues were tried, and the conclusion was something like this: That most of the cholagogues that we use, such as calomel, bichlorid of mercury, salines, would hasten the flow of bile but would not change materially the twenty-four-hour content of the bottle. One could see that a hastened flow might be an advantage in many cases, especially in drainage of the gall bladder. It was found that there was just one substance which would really increase the flow of bile itself, and that was the bile salts, the various forms of choleate. By giving these bile salts in small quantities, there resulted a quite large percentage of increase in the quantity of bile and in the elimination of bile salts, more than could be accounted for by the intake of a small quantity of the choleate.

I wonder if Dr. Fantus thinks there is very much value in the choleate salts in cases of cholecystitis.

Dr. Bernard Fantus (Chicago): The objection to phenobarbital and the preference for barbital was mentioned. I must say that I have found barbital frequently disappointing. Patients may or may not go to sleep when you give barbital, but they do go to sleep when you give phenobarbital. When you tell a patient, "I am giving you this to make you sleep," and he doesn't sleep, it is somewhat of a disgrace to you, you feel bad about it. One likes to have things act when one says they will. I remember the first time I used apomorphin hypodermically. A fellow was fighting drunk, and I had heard that apomorphin was a good thing to use in such a case, so I injected apomorphin hypodermically while three men held the patient down for me. Nothing happened. Five minutes passed and nothing happened, and the fellow was more violent than before. I commenced to wonder whether these pharmacologists were not a certain species of prevaricators. Another five minutes passed. It seemed hours to me, and I thought, "Well, here's where I meet my Waterloo." Then the patient vomited profusely, and I was vindicated. That one point had not been given to me in connection with my studies of apomorphin, that it takes just about ten minutes far it to act. Barbital may take hours to act, if it acts at all.

I have had no experience with the bile salts. I would like to submit that comparatively recent experimental studies have shown that oil of peppermint is a remarkable cholagogue, which may have something to do with the old-fashioned use of peppermint drops in certain forms of colic. In a prolonged use of medicine such as these patients with cholecystitis or cholelithiasis will need, I fancy that if I had the trouble I should rather take neither bile salts nor oil of peppermint, but some of these salines that

Periodic Health Examinations*

BY JOSEPH A. CAPPS, M.D.
Chicago

The lack of enthusiasm on the part of the profession for initiating a program of regular examinations of all people, whether ailing or not, can be traced, I believe, to two general reactions.

First, an honest doubt as to the ultimate good to be obtained by such a routine.

Secondly a reluctance to enter into a scheme that involves team work and that tends to restrict the physician's individual field of action. Along with this feeling there is a vague fear that such universal examinations will lead us into "contract practice" and "state medicine."

In considering the actual value of regular examinations of the healthy, I must confess that my own interest in the matter was at first quite passive. We all readily admit the necessity of a careful physical inventory of recruits in time of war, but the main purpose in war is to secure good fighting material for the army and not primarily to benefit the candidates. Most of us were not concerned with the fate of rejected men and no one knows to what extent these disqualified individuals profited from a knowledge of their defects. Doubtless many of them felt that disability was an asset rather than a liability.

The practicing physician does know, however, from his own experience that the discovery of pus in the antrum may lead to the clearing up of a chronic bronchiectasis; that the removal of diseased tonsils and teeth may mitigate or cure a constitutional malady; that surgical operation for hernia may increase the individual's efficiency and protect him from serious complications; that proper diet and exercise may forestall the dangers of overweight. These and similar conditions he finds constantly in patients who come to him for other ailments.

Is it not reasonable to suppose therefore that all persons would benefit from an occasional medical overhauling?

The men who can speak with authority on the value of routine examinations are the physicians in industrial plants, in universities and life insurance companies, because they can follow up their cases over a period of years. Almost without exception these physicians have claimed a notable improvement in health of the average individual examined, as compared with that of the unexamined. For example, the Life Extension Institute finds the mortality of the group examined 27 per cent less than that of the unexamined over a period of ten years.

The *spirit and intelligence* put into an examination constitute its real value. The mere routine of recording facts and reviewing the physical shortcomings of a man is worth little or nothing to him. The history must be obtained with a keen interest and the nature of the examination be determined to a great extent by the facts elicited. A rapid pulse will suggest especial attention to thyroid and heart; pallor to the blood; a high blood pressure to the kidneys; headache to the eyes, etc. Finally the advice of the physician must not end with a statement of the findings. Giving long, detailed written reports to the individual, I think, is inadvisable, as they contain too much technical information that is confusing and often the cause of unnecessary apprehension. A plain statement of the defects or abnormal conditions present with clear, definite instructions for the removal or mitigation of the trouble is the goal to be reached.

This goal, however, is not always easy to attain. Blood pressure is not usually controlled by diet, removal of foci of infection or a change in habits. Only too often we must confess our ignorance of how to cure migraine or chronic arthritis. But when specific remedies are lacking it is nearly always possible to help the individual by indicating more rational ways of living. Diet will control glycosuria and constipation and most cases of abnormal weight.

THE ANGLE OF APPROACH

What then is the difference between an ordinary examination and a so-called health examination? It is essentially a difference in the angle of approach. When a patient consults a doctor for acne or cough or colic or bladder distress the whole physical investigation revolves about the chief complaint to the end that a cause may be found and a cure be effected. The patient with bronchitis will have little attention paid to his central nervous system or to his blood.

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On the other hand the health examination must be more objective and general. Herein lies a danger that too much stress will be given to anatomical variations. Health is compatible with many types of architecture. A lateral curvature of the spine, a deviated septum, a ptosis of the stomach need not be taken seriously if function is normal. There is a passion amongst us for straight lines and symmetry. And yet nature abhors a straight line. We observe a lack of symmetry in the most perfect tree. Even in the masterpieces of artists there is a curious lack of conformity to measurements. There is not a straight line in the Parthenon, that most perfect of temples built by man. I would plead therefore for a more liberal attitude toward variations of the human body from the idealistic anatomical charts. More important by far than anatomical variations is disturbance of *function.* The flat-footed postman who walks his daily route without discomfort does not need our solicitude. A woman with a floating kidney and no abdominal symptoms had better remain unaware of the condition.

We might agree then that periodic examinations are worth while, provided that they are carried out intelligently by well trained physicians, interpreted simply to the patient, and made the basis of constructive advice.

Our next consideration is, how can these regular examinations of the healthy be carried out. Can this program be set in motion by the individual efforts of practitioners? Are most physicians capable of making a comprehensive examination and laying out a course for the patient to follow? Is it too much of a responsibility to place on the general doctor to determine what specialists and procedures are necessary in a given case? Or is it desirable that some new machinery be brought into play, a group of specialists who advise what should be done?

The physician is essentially an individualist and must always be so in relation to his patient. When new problems arise that demand the care and protection of whole communities, he is likely at first to resent the public health officers, much as the skilled laborer once resented the introduction of machinery and mass production. And yet without these public officers and health departments preventive medicine would have been greatly retarded or even blocked. Systematic medical inspection of a community, just as preventive medicine, demands direction of trained specialists who are not engaged in private practice and who therefore are free from the bias of personal gain. These directors would render their greatest contribution by educating the public to consult their own physicians at stated intervals.

The practitioner is not left out of this picture by any means. In fact upon him must fall the duty of examining and counseling the patient. But to do this well he should have a new view point. Many doctors are competent to diagnose and treat medical and surgical emergencies with skill, who are failures in the examination of the so-called healthy. Witness the scores of healthy men rejected in the army draft, because of an innocent heart murmur.

This new view point may, of course, be acquired. Special courses should be offered in the medical schools and hospitals emphasizing such matters as posture, nutrition, breathing, obvious defects of vision and hearing, hernia, hemorrhoids, flat feet as well as the conditions producing symptoms volunteered by the patient. Post-graduate courses for practitioners would do much to develop the desirable point of view.

PREPARATION MEANS CONTROL

If the practitioner will take the trouble to prepare himself to undertake this work, he may control the situation in part. Otherwise the burden of health examinations will fall upon the physicians who are employed by universities, industrial organizations and insurance companies. From an economic standpoint these physicians have an advantage of training in and concentration upon their work.

It is well to remember that it is not within the power of the ethical practitioners to reach more than a fraction of the people in a community. Perhaps the ideal solution for the community would be to have competent physicians on full-time to carry out health examinations at a nominal cost, but to refer these persons back to their physicians for care and treatment when indicated. The small expense would attract many who would otherwise do without medical advice. In the end the practitioner would be the gainer because the clients of charlatans and those without medical affiliations would seek his services.

But whatever method may ultimately be found best, the physician is a man whose deepest interest will always be the service for and the welfare of

the people. With a wider field of vision and experience he will not only approve of, but take an active part in any sane program for popularizing health examinations as a part of the larger plan of promoting preventive medicine.

DISCUSSION.

Dr. Wilson Cunningham (Platteville): I think it behooves us as practitioners to work out some method of procedure. We are all pretty much agreed that health examinations are advisable, and yet we have no particular method of putting this before the public.

We are opposed to the different institutes, for example, the Life Extension Institute, as a class. Yet we have no definite method. They have a method, and they are selling it to the public. Unless we get some procedure, they are going to continue selling theirs to the public. Therefore, it behooves us as practitioners to get a method that we can present to the public and can endorse.

The manner of procedure of an individual examination by an individual practitioner I think is best carried out by making his examination in his usual way and advising his patient accordingly.

Dr. Bernard Fantus (Chicago): I must confess that I am full of this subject. I feel that the members of the Program Committee have shown their up-to-dateness by having several papers on periodic health examinations before this meeting. It really cannot be agitated too much, and I believe it will do as much good to the profession as it will to the public.

If we can force each and every physician to fit himself to make these examinations properly, it will do him and his patients a lot of good. There is a good deal of beating about the bush. I think we ought to call a spade a spade. There is only one way in which you can reach the people, and that is by advertising. We all agree that we are opposed to individual advertising, but I believe that, in order to get this thing to the people, some way will have to be devised by medical organizations, by our county societies and our state societies, to advertise this thing and to advertise it after they have made each and every member of their organization competent to do this work. The details of that, of course, would have to be worked out.

There is another thought that I should like to inject in this discussion. That is, that the people should have a record of their examinations. An enormous amount of valuable information is being lost continually by this individualism of each and every one of us. Patients go to hospitals, have elaborate x-ray and laboratory examinations, and they may get advice which they may not follow; then they go to some other doctor and he has to go all over the thing again. Why is not the patient entitled to a record of his examination? I would propose that as a part of this agitation a book should be elaborated, a blank book, perhaps entitled "My Health Inventory," of such nature that it would be a good present to give at the birth of a child and on birthdays of individuals. In this book there might be on the first page a discussion of hereditary data, on the next page data regarding the birth of the individual, then blank pages in which the results of examinations may be recorded and in which any sickness that the patient has may be entered. This book should be in the possession of the individual so that when he goes to another practitioner——his family physician may have died—instead of having to try to remember his past history, which is never a perfect picture, because of deficiency in recollection, there would be a document of evidence of what had happened to that individual. The American Medical Association might be the organization to get out these health inventory blanks for sale to the public.

Dr. Oscar Lotz (Milwaukee): Just a word or two of warning, not so much as an alarm, but to stress the fact that these periodic health examinations can be looked at from two angles. The first, of course, is from the patient's standpoint. There is no question of the value to the patient. Probably more important, however, from our standpoint is the value to the physician.

A little while ago a physician told me about the death of some doctor who had left a little money. My answer was, "Isn't that surprising? Usually doctors don't leave any money when they die." That is probably our own fault, as a rule. In the periodic health examination we have probably one of the best means of preventive medicine that has ever been brought out, and it is up to us individually and collectively to get busy and get our share of it. When we think about the health department and the hundreds of people they vaccinate during an epidemic, we might well think of the money that is taken out of the hands of the practitioner by the health department in doing that. It is not the health department's fault; it is absolutely our own fault, because the health department must do it when we fail to do it. If we medical men had taken up the diphtheria immunization a little more thoroughly, a little more conscientiously, the health department would not be obliged to take up the toxin-antitoxin immunization as it is doing today. If we stand back and do not take up this periodic health examination, again the health departments are bound to take it up, as they are doing in the schools. Again it is our own fault if we miss this one big bet from a purely business standpoint.

There is no argument about the welfare of the patient, and it seems to me that we ought to wake up and get hold of this method of increasing legitimate, honest, good business.

Dr. J. A. Capps (Chicago): Dr. Fantus spoke of advertising this proposition, and I presume that it might be done or can be done in a legitimate way. I think, however, we should be very careful in the way that such things are done, not on theoretical grounds, but for certain psychological reasons.

If one goes to a banker or broker and says, "I want to invest a little money," and the broker says, "All right, you buy some steel and you buy some motors and you buy some of this oil stock, then you buy some of this and some of that," right off the bat you have a strong feeling that he is trying to sell you something. You are not as much impressed with his interest in your welfare as in his interest in his own commission. If, however, your banker or broker says to you first, "Young man, before you buy anything I should like to know something about your previous investments. Have you a mortgage on your house? How much money have you?" and after talking it over say, "I don't believe you had better buy anything at all, the best thing for you to do is to keep that little cash balance where it is, and by all means don't speculate," you go away from him feeling that he is an adviser; he is not a salesman.

It seems to me of the first importance that the physician who traditionally holds a position as adviser in medical matters in the family should preserve that tradition. He cannot afford to lose that; it is the most precious asset that he has. He must *not* be a salesman. If we can accomplish this matter of spreading the gospel without introducing the spirit of salesmanship on the part of the physician, we will do far better.

The question is, and it seems to me a crucial question, how can this be avoided? Most of us are reluctant to go after practice. I think that is a very healthy feeling; it is one to be cultivated. It seems to me that the public health officer, as Dr. Carr has brought out, is in a position to spread the gospel without any criticism of having anything to gain personally; he can do it in the interest of the community which he serves. The public health officer can develop this publicity and educate the public to the need of health examinations better than anyone else. In our conversation we can always lend our influence, but I feel that the private practitioner cannot be the promoter who is going to put this proposition over. We have to have men interested in public health matters who can do that. They can educate the public in the things that we can carry out as practitioners. We can always back them up, but we can preserve the traditional attitude of the

physician as a counselor and adviser, as willing to advise the patient to avoid medical treatment as to prescribe it.

If we go at this program in the attitude that it is something we want to prosecute because it is going to help our pocketbooks, it is wrong—that is obvious. If we go at it because it is going to help the patient and help the community and is a real good, it is going to succeed because it is right and because the laymen will back it up. It is only if it is successful for the community as a whole and for their good that it should succeed.

Bronchography Following the "Passive" Introduction of Contrast Media Into the Tracheo-Bronchial Tree

BY ALTON OCHSNER, M.D.
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With the introduction of the roentgen rays chest diagnoses became infinitely better. Conditions which previously had never been diagnosed during life could be easily seen on the radiographic plate because of their increased densities. Still the diagnostic error remained great—even in spite of refinements in technic. In the autopsy room the clinician and radiologist were often surprised to find pulmonary conditions which had not been suspected during life. Commonly enough patients who had been treated for years in sanatoria for tuberculosis were found to have an advanced bronchiectasis and no sign of a tuberculous lesion.

Gross lesions were easily made out and diagnosed by means of the roentgenogram, but often it was extremely difficult to make a correct diagnosis in the earlier cases. Lung markings could be made out but there was difference of opinion as to whether these shadows were produced by the tracheo-bronchial tree, infiltrations about them, or a vascular change.

In order to more clearly and definitely map out the lung, Chevalier Jackson as early as 1905 insufflated bismuth oxide into the tracheo-bronchial tree through the bronchoscope. A more definite picture of the bronchial tree was thus obtained. Bismuth oxide was soon replaced by bismuth subcarbonate which was less irritating to the tracheo-bronchial mucosa and gave a better shadow.

Since Jackson's pioneer work several other opaque substances have been introduced into the tracheo-bronchial tree in order to more clearly visualize it by means of the radiograph.

Yankhauer in 1917 applied iodine to bronchiectatic cavities through the bronchoscope as a therapeutic measure. X-ray pictures taken of the patients thus treated showed an outline of the cavities.

Weingartner in 1919 while studying the physiology and topography of the tracheo-bronchial tree insufflated the lungs of three patients with anhydrous thorium-oxydate. In this way he obtained a clear-cut radiographic picture of the trachea and bronchi.

In 1920 Lynah and Stewart were able to visualize two lung abscesses following the bronchoscopic introduction of a bismuth subcarbonate suspension in olive oil. In 1921 they reported five cases so treated diagnostically, most of which were benefited by the diagnostic procedure. The above substances while producing clearer roentgenologic understanding of many pulmonary conditions were far from being entirely satisfactory. Working experimentally Waters, Bayne-Jones, and Rowntree injected into the trachea of dogs a 10 per cent emulsion of chemically pure iodoform in olive oil. The outcome, which resulted in a 25 per cent mortality, hardly warranted the substances being used clinically.

In January, 1922, the French observers, Sicard and Forestier, together with Leroux, first used an iodinized oil, lipiodol, as a contrast substance in the tracheo-bronchial tree. Lipiodol is a stable chemical compound composed of 40 per cent iodine in poppy-seed oil. It is amber colored, rather viscid, and non-irritating. Because of its stable combination free iodine is given off so slowly that it is non-irritating to the bronchial mucosa. Before Sicard and Forestier had employed lipiodol as a contrast substance in radiographic work, it was used as a therapeutic agent for intramuscular injections. X-rays taken following the intramuscular injection proved its value as a contrast medium.

Since its introduction lipiodol has held first place in bronchography and justly so because of its following characteristics:

1. Because of its high iodine content it produces a very definite and distinct shadow.

2. Because of the stable combination the iodine is given off slowly and is practically non irritating.

3. The slow liberation of the iodine produces a

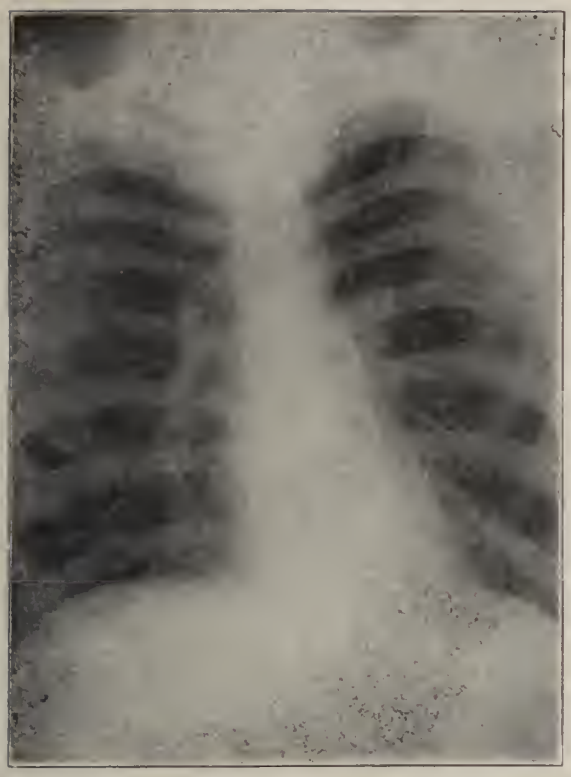

Fig. I. Roentgenogram of patient with chronic productive cough. Marked hilum shadow with peribronchial thickening.

Fig. II. Same patient as in Figure 1 after introduction of lipiodol. Advanced bronchiectasis left lower lobe. Normal right tracheobronchial tree.

long continued action, which is undoubtedly of therapeutic value.

Besides lipiodol, which is a French product, there are other iodized oils in use. Iodopin is the German and Iodumbrin the Danish product, both of which have practically the same iodine percentage as lipiodol.

Because of the possibility that iodism might occur in an individual susceptible to the drug and because iodized oils are occasionally irritating to the peritoneum when used in determining the patency of the fallopian tubes, a German gynecologist, Dyroff, has quite recently introduced a brominized oil, "Contrastol." Contrastol is supposedly much more stable than the iodized oils.

METHODS OF INTRODUCTION OF CONTRAST MEDIA

Jackson, Yankhauer, Lynah and Stewart originally introduced the contrast substances into the trachea through the bronchoscope. This method is still preferred by many authorities, especially the bronchoscopists. Jackson and Clerf believe that a diagnostic bronchoscopy should be done at the same time as the insufflation. They still prefer the bismuth subcarbonate insufflations to the iodized oils.

The French observers employ two methods. That most commonly used, especially in adults, is the laryngeal method by which the iodized oil is introduced directly into the larynx by means of a laryngeal syringe. The popularity of this method is easily seen by a study of the literature which shows that in addition to the French school, Moeller and Magnus, Egan, Kovats, Abramowitsch and Tichomirow and others advocate it. Sgalitzer in Vienna has modified the intralaryngeal method by the use of a rubber tube, which passes through the larynx into the trachea. The tube is left in situ, and the iodized oil injected into the trachea under the fluoroscope. In those individuals, notably children, in whom an intralaryngeal injection is almost impossible, the French inject the contrast medium directly into the trachea after introducing a needle through the cricothyroid membrane. Gray, Elder, and Grady use this technic entirely. Balloon considers this method permissible in children but believes that in adults the bronchoscopic method should be used. Quite recently Iglauer has advocated the use of a very ingenious intubation tube, which remains in the larynx during the injection of the contrast substance.

It is readily seen that by the employment of

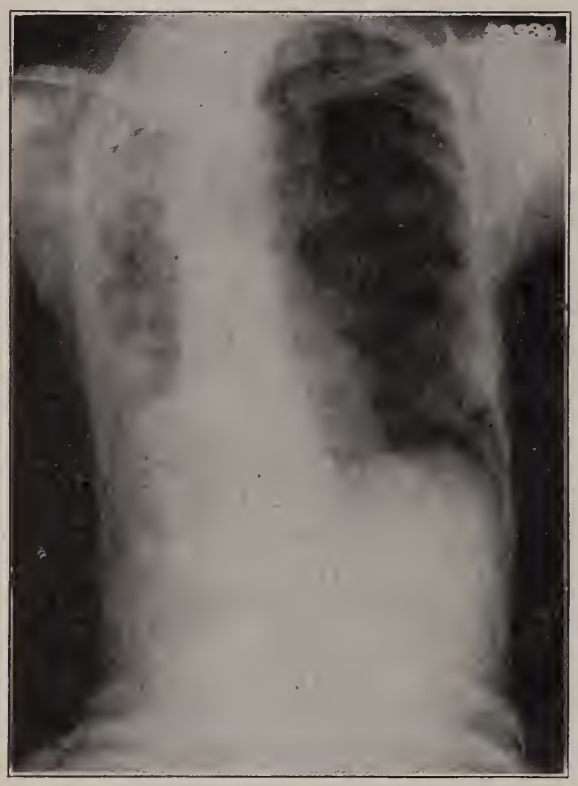

Fig. III. Pulmonary tuberculosis following extrapleural thoracoplasty. Patient clinically cured.

any of the above methods contrast substances can be introduced into the tracheo-bronchial tree. All the methods have one drawback, and that is that they are more or less complicated and require a certain amount of special training.

Even though it is desirable and often essential to have a bronchoscopic examination in those cases in which a bronchography is done, it is often impossible to carry out, either because a specially trained bronchoscopist is not at hand or because the patient's condition would not warrant such a procedure. Bronchoscopy in the hands of a trained individual is perfectly safe, but we have all seen patients in whom we would hesitate to advise it.

The intratracheal injection, while a much simpler and less formidable procedure than a bronchoscopic examination, is still quite complicated and requires considerable skill. The physician must have had considerable experience in order to introduce the laryngeal cannula correctly and inject the contrast substance without injuring the larynx. Occasionally individuals are seen whose throats are so irritable in spite of thorough anesthetization that it is only with great difficulty that an instrument can be introduced into the larynx. This difficulty, which a laryngologist encounters, becomes very much greater for the novice. The same objection applies to the use of the intubation cannula.

The passage of a needle, no matter how fine it may be, through the cricothyroid membrane into the trachea is certainly not without danger. Cases of hemorrhage into the perilaryngeal tissues have been reported. Armand-Delille and his co-workers, who use this procedure exclusively in children, have had a few cases in which the oil has been injected into the perilaryngeal tissue. Armand-Delille has a specially devised curved cannula, similar to a tracheotomy cannula, for the introduction of the oil through the cricothyroid membrane.

In contrast to the above described and complicated procedures I wish to describe an extremely simple one, which was reported by Nather and Sgaltizer in 1925. While serving in the capacity of an exchange assistant in the Zurich Surgical Clinic under Prof. Clairmont, we accidentally fell upon this procedure. Following an oesophagoscopy for carcinoma of the oesophagus, preceding which a complete anesthetization of the pharynx

Fig. IV. Same patient as in Fig. III after introduction of lipiodol. In spite of definite clinical improvement there still persist large cavities.

Fig. V. Advanced pulmonary tuberculosis. Attempt made to fill cavity right upper lobe. Lipiodol passes directly up to the cavity but does not enter it.

had been made, the patient was given a barium meal in order to visualize the tumor radiographically. Much to our surprise the barium instead of passing into the oesophagus was seen to pass into the trachea. The patient began to cough and within a few minutes had coughed up all of the aspirated barium. At first the possibility of a perforation of the oesophagus into the trachea was considered, but a subsequent radiograph taken after the anesthesia of the pharynx had worn off showed the barium meal passed directly into the oesophagus in the normal way.

ANATOMY AND PHYSIOLOGY

The physiology of swallowing is a complex one. It is a reflex act. According to Starling the stimulus originates in the fauces and is caused by the food passing into the pharynx. The afferent fibres are the second division of the fifth nerve, glossopharyngeal, and the pharyngeal branches of the superior laryngeal nerve. The efferent fibres are the hypoglossal to the muscles of the tongue, the fifth nerve to the mylohyoid, glossopharyngeal, vagus and spinal accessory to the muscles of the fauces and pharynx. During the act of swallowing, which becomes involuntary as soon as the food reaches the pharynx, the larynx moves up to lie beneath the epiglottis, which protects it. Contrary to the belief which is commonly held, aspiration during deglutition is prevented not by the downward motion of the epiglottis closing the upper opening of the glottis, but by the movement upward of the larynx which comes to lie in a protected position beneath the epiglottis and the base of the tongue.

Like the cardia there is a normal tonicity of the upper oesophageal orifice. According to Killian, Starling, and Macleod this normal tonicity persists until during deglutition, at which time an inhibitory impulse is supplied, allowing the oesophageal orifice to open. Dessecker believes this inhibitory reflex to originate in the posterior pharyngeal wall.

To recapitulate, during swallowing a reflex act is instituted by food passing through the fauces into the pharynx. The contact of saliva or food with the mucosa in the region of the fauces produces the sensory stimulus. Centripetal impulses are carried to the medullary centers, which in turn send centrifugal impulses to the pharyngeal

Fig. VI. Tumor of the mediastinum pushing bifurcation upward and to the right. Left bronchus pushed upward considerably so that it comes off from the trachea at a right angle. Stricture of the left bronchus with dilatation distal.

muscles. Accompanying the contraction of the pharyngeal muscles there is an elevation of the larynx so that no food can be aspirated. There is also a reflex inhibition of the normal tonicity of the oesophageal orifice allowing the food to enter the only opening, the oesophagus. If, however, the mucosa of the oral pharynx and fauces is anesthetic, swallowing is interfered with because the reflex arc is broken. Substances entering the pharynx do not stimulate the centripetal fibers; there is no stimulation of the medullary center and no movement of the pharyngeal muscles. The larynx does not move upward to a protected position beneath the epiglottis, and the normal tonicity of the oesophageal orifice is not inhibited. The substance in the pharynx can enter the only opening present, the larynx.

TECHNIC

With this bit of anatomy and physiology it is easy to understand how a bronchography may be very simply and easily carried out. The method which I wish to describe is one which any one of you can easily do and which is not at all unpleasant to the patient. It is true that it requires complete anesthetization of the pharynx and palatine arch, as do practically all the other procedures, especially the intratracheal and bronchoscopic methods. Following the introduction of the anesthesia no instrumentation is necessary, however. The technic employed is briefly as follows: No preliminary medication is necessary. It is even not necessary for the patient to omit the preceding meal. The patient is instructed to brush his teeth well and is given an antiseptic mouth wash. The pharynx and hypopharynx are then anesthetized with a ten per cent cocain solution. For this purpose a curved applicator which holds a pledget of cotton saturated with cocain solution is used. It usually requires three applications of a ten per cent solution to get complete anesthesia. It is essential and necessary to have the anesthesia complete before the contrast substance is given to the individual. The anesthesia is determined by the mobility of the larynx. The observance of the laryngeal mobility as an indicator of the degree of anesthesia was suggested to me by Professor Meek. In order not to cause a relaxation of the oesophageal orifice which remains tonically closed, it is essential to confine the anesthesia to the meso and hypopharynx and not extend it down into the region of the oesophageal orifice. As soon as the larynx fails to move upward on attempted deglutition, the anesthesia is complete, and a contrast substance given will pass into the larynx and trachea instead of the oesophagus. The patient is taken to the fluoroscopic room after completion of the anesthesia, and not more than two or three minutes should lapse before the iodized oil is given. As no adrenalin is added to the cocain solution, the anesthesia is only transitory, lasting not more than three or four minutes at the most. We have purposely left out the adrenalin in order to shorten the anesthesia so that there is no danger of aspirating other substances following the introduction of the oil.

The patient is given from 15 to 30 c.c. of warmed lipiodol while under the fluoroscope and instructed to drink the solution. He is tipped slightly to the right or left side, depending upon the side which should be radiographed. During fluoroscopy it is seen that the contrast substance remains for a short period of time in the region of the pyriform sinus and then enters the trachea to pass into the desired bronchus and lobe. With the patient in the upright position the lower lobes become filled with the oil. If the filling of the upper and middle lobes is desired, immediately after the entrance of the oil into the trachea, the patient is tipped toward the affected side in such a way that the head lies on a level lower than the rest of the body. Depending upon the extent of the pathological condition present, the reaction of the patient to the procedure varies. Patients with normal lungs, which present no pathology, have a paroxysm of cough almost immediately, causing practically complete evacuation of the oil within a few minutes. Individuals who have had a pathological process in their lungs for a considerable time, especially those with bronchiectasis, react quite differently. Aside from a slight dyspnoea, which occasionally occurs, they present no symptoms, and the lipiodol can be seen filling the dilated bronchi and alveoli. Stereo-roentgenograms are then made of the chest. If the cough reflex is marked, the patient is given 3 to 5 c.c. of a 3 per cent novocain solution to swallow before the introduction of the iodized oil. This controls the cough reflex very well.

We feel that the introduction of the contrast medium should in every case be done under a fluoroscope, as the mode of filling of the lung is as important as the interpretation of the radiographic plate. Lenk and Haslinger even believe

Fig. VII. Pulmonary abscess following drainage and extra-pleural thoracoplasty. Sinus injected with lipiodol shows abscess cavity communicating with the bronchus of the lower lobe.

Fig. VIII. Patient with productive cough for four months. Lipiodol injection shows dilatation of the terminal bronchi, left lower lobe.

that fluoroscopy is by far the more important procedure. They state that many cases of so-called bronchiectasis, diagnosed after the introduction of iodized oil from x-ray plates, are really not pathological. They point out that if the radiographic rays catch a bronchus obliquely, an apparently dilated structure will be found on the plate. If the rays, however, pass at right angles to the bronchi, a normal picture will be made out. If the patient is fluoroscoped during the introduction of the oil, he may be turned in different directions, eliminating false diagnoses. Lenk and Haslinger, also state that if the oil gains entrance to the alveoli that it is not expectorated but remains dormant until absorbed. We have not been able to confirm this observation, except in those patients with bronchiectasis. A normal lung, even when filled to the terminal bronchioles and alveoli, will become evacuated within a very short time. Armand-Delille and his co-workers have also found that the iodized oil remains for a considerable period of time in bronchiectatic cavities whereas in normal lungs it immediately becomes eliminated.

Just why pathological lungs should behave differently in the evacuation of the contrast substance than normal lungs, seems, of course, quite difficult to understand. Several explanations may be advanced. According to Chevalier Jackson the normal cough reflex originates in the mucosa of the entire tracheo-bronchial tree, the reflex diminishing as one passes peripherally. The bronchial mucosa soon becomes accustomed to the presence of a foreign body, as can be easily demonstrated bronchoscopically. During bronchoscopy after the initial cough reflex, the patient has no tendency to cough unless the bronchoscopic tube is advanced in the bronchus, coming in contact with a new portion of the bronchus. This fact explains why a stationary foreign body, within a short time after its aspiration, produces no cough unless it is of the vegetable kingdom, causing a secondary inflammatory reaction. Those foreign bodies, however, which move back and forth during respiration produce a persistent cough. Secretions and foreign bodies, lying in the peripheral portions of the bronchi and bronchioles, are normally brought up into the trachea and expectorated. This was demonstrated by Lynah and Stewart, following the bronchoscopic introduction of bismuth subcarbonate in oil. They observed fluoroscopically that the contrast substance, after its introduction, tended to rise in the bronchi, even against the force of gravity.

Bullowa and Gottlieb, while examining a patient suffering from carcinoma of the oesophagus with a perforation into the trachea, were able to observe distinct movements of the bronchi. There was a pulsatory movement, more marked on the left side, synchronous with the heart beat. There was, also, a bellows-like contraction and expansion of the trachea and bronchi synchronous with respiration. In addition they found a distinct peristalsis in the bronchus, which began peripherally and extended toward the trachea. Experimentally they were able to produce the same condition in dogs by cauterization of the bronchi, producing a destruction of the bronchial wall and fibrous replacement. Reinberg and Kaplan, working with geese, were able to demonstrate the same phenomenon. Reinberg believes the terminal bronchi and bronchioles are unable to institute the cough reflex, but that the secretion and foreign bodies must be carried by the peristaltic action of the bronchi, to a lesser degree by the cilia, into the first and second subdivisions of the bronchi where the cough reflex is instituted. Individuals presenting a marked pathological change in the terminal bronchi, as is found in bronchiectasis, have lost the normal contractility of the bronchial musculature. Pathologically it can be seen that not only is the mucosa more or less destroyed but also the musculature is replaced by fibrous tissue in advanced cases. Dilatation results, causing a stagnation of the secretion which is especially liable to secondary infection. It can easily be seen that a bronchiectatic lung will retain the iodized oil over long periods of time, partly because of the above explanation, and partly because the terminal bronchioles and alveoli have been accustomed to retain a large amount of secretion.

Up to the present time contrast substances have been introduced into the bronchial tree mainly for the purpose of diagnosis. It has been especially useful in diagnosing bronchiectasis and differentiating it from tuberculosis. Undoubtedly in the past many cases of pulmonary tuberculosis with negative sputum have in reality not been tuberculosis but a chronic bronchiectasis. This is well illustrated in a case which I wish to report. If the pathologic process is located in the left lower lobe, it is practically impossible to visualize the pathology with the ordinary roentgenogram because of the overlying heart shadow. Roentgenograms taken following the introduction of iodized oils into the tracheo-bronchial tree give a very clear picture of the condition of the bronchi irrespective of their position. (Figures I and II.) Our findings agree with those of Jehn, Sauerbruch, and others in that bronchiectasis usually occurs in the left lower lobe. Bronchography is indispensable to the thoracic surgeon in permitting him to visualize the condition of the involved and the uninvolved lung. This is especially true in cases of bronchiectasis. (Besancon, West, Bernard, and Azonlay; Necaud and Dollfus; Armand-Delille, Dubamel, and Marty; Danielson and Manfred; Grad; Armand-Delille and Gelston; Balloon; Kovats.) It is also very useful in determining the amount of collapse following extrapleural thoracoplasty. (Archibald and Lorey.) Occasionally following such procedures the patient does not recover as well as one might expect, even though collapse of the affected side seems complete. The introduction of iodized oil usually shows in these cases that in spite of apparent clinical collapse, there still remain large uncollapsed cavities. (Figures III and IV.) As brought out by Clerf, pneumonography may be used to a good advantage in determining the relationship of foreign bodies within the parenchyma of the lung to the bronchi. He reports a case with a bullet in the lung, which was referred to them to determine whether a peroral extraction of the bullet through the bronchoscope was advisable or not. Quite recently Burns and Barnwell have used iodized oil to visualize tuberculous cavities. It is doubtful whether all cavities can be filled with the contrast substance. We agree with Iglauer, Sergent, Cottenot, Lorey, Sicard, Forestier, and Landau, and others that very often it is impossible to introduce the oil into the cavity, either because the opening into the cavity is small or because the cavity is filled with secretion. (Fig. V.) Bronchography is also invaluable in demonstrating a stricture or stenosis of the bronchi, and as Clerf, Lenk, Haslinger, Presser, and Lorey have shown, the radiographic picture obtained after the introduction of the oil in cases of carcinoma of the bronchi is extremely desirable. (Figure VI.) The presence of broncheo-pleural fistulae may also be easily demonstrated by this procedure. (Jacobaeus, Escudero, Terrada, Gallino, Clerf, Moeller, and Magnus.) (Figure VII.)

Aside from the above diagnostic uses of iodized oils in the tracheo-bronchial tree a brief mention has been made in the literature of the possible

therapeutic value of the introduction of iodized oil into the trachea and bronchi. No untoward results have been observed. On the contrary, most observers state that the patient seems somewhat improved following the diagnostic procedure. (Burrel and Melville, Jacobaeus, Necaud and Dollfus, Danielson and Manfred, Lorey, Forestier, Armand-Delille and Gelston, Abramowitsch and Techomerow.) Our experience has borne this out very well. We began using lipiodol in the tracheo-bronchial tree purely as a diagnostic procedure. Much to our surprise the patients were invariably relieved following the introduction of the oil. For the first 24 or 48 hours following the bronchography the sputum became increased in amount and more fluid. After 48 hours the sputum decreased in amount markedly, and in cases of bronchiectasis with a very fetid sputum the odor disappeared. This improvement lasted for varying lengths of time, usually from two to three weeks. If a renewed filling were done at this time, the sputum again increased in amount but much less so than previously, and the same cycle of improvement was noticed. We have had patients with bronchiectasis who before their primary treatment had from 20 to 24 ounces of fetid sputum in 24 hours, so improved that the amount of sputum decreased from 1 to 2 ounces over the same period of time. They have, also, been relieved of the harrassing cough and the foul odor of expectoration. The clinical improvement has been very marked. Individuals who previously had lost their morale and become emaciated, and in all, presented a very pitiful picture, appeared entirely different persons after the introduction of the lipiodol therapy. Their appetite increased, and they gained as much as 20 pounds in a month. Their strength returned in addition to the marked respiratory improvement.

I wish to give a very short summary of a typical case. Male, 23 years of age, was admitted to the hospital for treatment of a lung abscess. For two and a half years he had noticed progressive loss in weight, persistent cough, and in 1924 had had a pulmonary hemorrhage. Two years ago he began his sanatorium treatment, and he has since been treated for tuberculosis in different sanatoria. Upon admission to the hospital the patient had a temperature of 100.2 and a pulse of 104. Examination of the chest was practically negative except for numerous rales over the entire left side, most marked at the base. An x-ray of the chest showed both apices to be clouded and definite lung marking on both sides with some calcification of the lymph nodes. X-ray diagnosis: *Fibrosis of the apices and peribronchitis.* (Fig. 1.) The patient had large amounts of sputum, about 10 ounces in 24 hours, which was of a fetid odor. At no time had tubercle bacilli been found in the sputum. Lipiodol introduced passively into the tracheo-bronchial tree showed a marked dilatation of the terminal bronchi and alveoli on the left side and in the left lower lobe. (Figure II.) The right

Fig. IX. Same patient as in Fig. VIII. Within a week following first injection symptoms entirely cleared up. Renewed lipiodol introduction shows normal tracheobronchial tree. Patient clinically cured.

side in spite of the definite lung markings showed the bronchial tree to be normal. A diagnosis of bronchiectasis of the left lower lobe was made. Three subsequent lipiodol injections were done while the patient was in the hospital. He was discharged 18 days after admission with a normal temperature. He had gained in weight. His sputum had decreased to one ounce in 24 hours and was without odor. Since his discharge from the hospital he has had three lipiodol injections, each time with marked improvement. He has noticed that the sputum remains free from odor for about two weeks following the injection of

lipiodol, after which the fetid odor returns. His gain in weight has been over ten pounds since the introduction of this therapy. Bacteriologic examination of this patient's sputum before the introduction of the lipiodol showed 4,200,000 organisms per c.c. Two days after injection the sputum contained 200,000 per c.c.

Many observers, especially those of the French school, have warned against the use of lipiodol in tuberculous patients. (Armand-Delille, Sergent, and others.) Iodine has been used empirically in the treatment of tuberculosis for a number of years. Ritter believes that the tincture of iodine given by mouth is of distinct benefit. Peterson is, also, of this same opinion. Butler, working with guinea pigs, found that the introduction of iodine and iodids produce a dissemination of the infection. Mariette and Burke quite recently, while agreeing that if free iodine could be brought into direct contact with the tubercle bacilli, would be of great value, state that according to their observations iodine given by mouth is absorbed as iodid and excreted as such. They do not believe that the peroral administration of iodine is of any benefit in the treatment of tuberculosis. In spite of the frequent warnings in the literature that lipiodol should not be used in tuberculosis, we have used it very cautiously, and our results have been extremely satisfactory. The iodin in lipiodol is given off slowly in the form of iodine and is in direct contact with the pathological process so that the organisms can be directly attacked.

I wish to briefly report a case so treated. Male, age 26, admitted to the hospital because of persistent cough and raising of sputum. February, 1926, he began to cough and raise some sputum. A diagnosis of pulmonary tuberculosis with abscess formation at the right apex was made. The patient was sent to California, where he remained for treatment with no improvement. His sputum averaged about 100 c.c. in 24 hours. Upon admission to the hospital his temperature varied from 99.2 to 103 degrees, pulse 120. Examination of the chest showed an extensive process in both lungs, more marked on the left side. X-ray of the chest showed a fibrous infiltration at the extreme right apex with definite cavity formation. Diffuse parenchymal changes throughout both lungs. The patient has received four treatments with lipiodol with marked clinical improvement. The highest temperature that he has had for the past two weeks has been 99.2. He has gained 8¼ pounds, and his appetite has increased remarkably. His sputum, which upon admission varied between 8 and 10 ounces, has decreased to 1 to 2 ounces in 24 hours. The sputum still remains positive for tubercle bacilli. It is possibly a little early to predict the outcome in his case, but his clinical improvement has been very marked in spite of the extensive involvement at the time of his admission. (Figure V.)

Concerning the therapeutic action of the iodized oils it is safe to say that they do have an antiseptic action. This is shown both clinically and bacteriologically. The infection within the tracheobronchial tree in cases of bronchiectasis can be controlled, but it is folly to assume that once organic change has occurred in the wall of the bronchus that the individual can be cured. Surgery offers the only hope of ultimate cure in such a case. However, if the case is seen early enough before organic change in the bronchi has taken place, the chances of an ultimate cure are good. The following case briefly illustrates this.

Male, age 60, was admitted to the hospital for a prostatectomy. For about four months he has had cough, productive of a large amount of fetid sputum. He has been treated during this time for chronic bronchitis. Lipiodol injection shows definite dilatation of the bronchi in the left lower lobe. (Figure VIII.) Patient was discharged from the hospital. Two months later the patient was re-admitted because of a suprapubic fistula. Following lipiodol injection the patient's cough became less, and the sputum decreased, so that at the present time he has neither cough nor sputum. Renewed filling of lipiodol shows a perfectly normal tracheo-bronchial tree. (Figure IX.)

SUMMARY

(1) Bronchography is a definitely recognized and invaluable procedure. However, because of the difficulty of its administration it has been heretofore of necessity a rather infrequent diagnostic procedure. For this reason it has been used up to the present time only in the more serious cases, presenting a more extensive pathology. One has hesitated using this procedure in a comparatively normal individual and in an extremely debilitated individual because of the difficulty of the technique and the effect on the patient.

(2) Lipiodol serves as a very satisfactory contrast substance, because of its high iodine content and marked stability.

(3) The passive introduction of lipiodol into the tracheo-bronchial tree after anesthetization of the pharynx and oral pharynx is the easiest, simplest, and for the patient the most comfortable and least dangerous procedure. Because of its simplicity and relative safety, a bronchography may be carried out in cases in which otherwise it would be contraindicated. Individuals too ill to permit intralaryngeal and intratracheal instrumentation stand this procedure well.

(4) Aside from its diagnostic value lipiodol has definite therapeutic value not only in the pyogenic pulmonary infections but apparently in tuberculous infections as well. The passive introduction of lipiodol into the trachea is especially desirable as a therapeutic technique, where repetition is necessary.

BIBLIOGRAPHY

Abramowitsch and Tichomirow: "Zur Frage der Einführung einer Kontrastsubstanz (Lipiodol) in die Bronchien," Fort. a. d. Geb. d. Roentgenst., 1926, 34: 22-25.

Archibald: "X-ray demonstration of pulmonary changes in tuberculosis by Lipiodol injection," Canad. Med. Ass. Jr., 1925, 15: 1000-1002.

Armand-Delille and Gelston: "The diagnosis of dilatation of the bronchi in children by means of the injection of iodinized oil," Am. J. Dis. Child., 1924, 28:527-548.

Armand-Delille, Duhamel et Marty: "Le diagnostique de dilatation bronchique ches enfants au moyen du Lipiodol," Presse Méd., 1924, 32:421.

Armand-Delille et Moncrief: "The use of Lipiodol in the diagnosis of bronchiectasis," Brit. M. Jr., 1924, 2:7-8.

Balloon: "The injection of Lipiodol as an aid in the x-ray diagnosis of broncho-pulmonary lesions including tuberculosis," Canad. Med. Ass. Jr., 1925, 15:995-999.

Beck and Sgalitzer: "Zur Bronchographie, mittels larynx katheters," Zeit. f. Hals u Ohrenh., 1926, 14:8.

Besançon, Weil, Bernard, and Azoulay: "Le syndrome lipiodo-radiologique de la dilatation des bronches," Bull. et mém. Soc. de radiol. Méd. de France, Paris, 1924, 12:31-34.

Bruns and Barnwell: "The interpretation of annular shadows appearing in radiograms of the lungs," Am. Rev. Tbc., 1926, 14:58-68.

Bullowa and Gottlieb: "Roentgen-ray studies of bronchial function," Am. Jr. Med. Sc., 1920, 160:98-107.

Idem: "Additional experimental studies in bronchial function," Laryngoscope, 1922, 32:284-289.

Burrel and Melville: "The value of Lipiodol in the diagnosis of bronchiectasis," Lancet, 1925, 2:278.

Clerf: "Bronchoscopic lung mapping in diseases of the lungs," Surg. Clin. N. A., 1924, 4:104-110.

Idem: "Pneumonography," Surg., Gyn., and Obs., 1925, 47:722.

Danielson and Manfred: "Some experiences of bronchography after injections of Lipiodol," Acta Radiol., 1924, 3:157-160.

Dessecker: "Beitrag zür pathologischer Physiologie des Schluckaktes und zür Füllung des Bronchialbaumes mit Roentgenbrei," Mitt. a. d. Grenzgebiet, 1924, 37: 41-50.

Dyroff: "'Contrastol,' ein neues Kontrastmittel für die Darstellung enkalibrigen Hohlräume," Deut. Med. Wchsft., 1926, 52:397.

Egan: "'Lipiodol-Lafay,' ein Kontrastmittel für die Roentgenuntersuchung der Luftwege," Forts a. d. Geb. d. Roentgenst., 1925, 33:199-200.

Escudero, Terrada et Gallino: "Visualizacion de la ffstulas hepateo bronquiales por rellino retogrado con aceite iodado," Arch. argent. de enferm. d. apar. digest, 1925, 1:189. Abs. Int. Abst. Surg., 1926, 42:15.

Forestier et Leroux: "Etude expérimentelle radiologique des injections intratrachealis par L'huile iodee injections lobaire," Bull. et mém. Soc. Med. d. Hôp. de Paris, 1923, 47:299.

Forestier: "Roentgenological exploration of the bronchial tubes with iodized oil (Lipiodol)," Radiology, 1926, 6:303.

Grady: "Demonstration of the bronchial tree by the intratracheal injections of Lipiodol," Am. Jr. Roentgenology, 1926, 15:65-70.

Guy and Elder: "Radiographie exploration of the broncho-pulmonary system by means of Lipiodol," Edinburgh, M. J., 1926, 33:269.

Iglauer: "Use of injected iodized oil in roentgen-ray diagnosis of laryngeal, tracheal, and broncho-pulmonary conditions," J. A. M. A., 1926, 86, 1879.

Jacoboeus: "On Bronchography in cases of purulent lung affections," Acta Radiologica, 1926, 6:616-630.

Jackson: "Tracheo-Bronchoscopy, Esophogoscopy, Gastrostomy," 1907, 69.

Idem: "The bronchial tree, its study by insufflation of opaque substances in the living," Am. Jr. Roentgenology, 1918, 454-455.

Idem: "Bronchoscopic observations on the cough reflex," J. A. M. A., 1922, 79:1399-1404.

Jackson, Tucker, Clerf, Lukens, and Moore: "Bronchoscopy as a diagnostic aid to the thoracic surgeon," J. A. M. A., 1925, 84:97-103.

Jehn: "Die Bedeutung des Roentgenverfahrens für die Entwicklung und Diagnostik der Thorachirurgie," Verhand Deuts. Roentg. Gessel, 1923, Fort a. d. Geb. d. Roentstr., 1923, 31:6.

Landau: "Die Roentgendiagnose der Bronchiektasie mittels Kontrastöl," Deut. Med. Wchschr., 1925, 51: 1115.

Lenk and Haslinger: "Roentgenuntersuchung an normalen und kranken Bronchien nach Fuellung mit Lipiodol," Klin. Wchnschr., 1925, 32:1533-1535.

Lenk, Haslinger, and Presser: "Diagnose von Erkrankungen der grossen Bronchien, namentlich Bronchostenosen mittels Kontrastfuellung," Fort. a. d. Geb. d. Roentgenstr., 1926, 34:117-120.

Lorey: "Ueber den Wert der Kontrastfuellung der Bronchien zur Darstellung der Bronchiektasen," Fort. a. d. Geb. d. Roentgenstr., 1925, 33:58.

Idem: "Ueber Bronchographie." Fort. a. d. Geb. d. Roentgenstr., 1926, 34:127-129.

Lynah and Stewart: "Roentgenographic studies of Bronchiectasis and lung abscess after direct injection of bismuth mixture through the bronchoscope," Am. Jr. Roentgen., 1921, 8:49-61.

Macleod: "Physiology and Biochemistry in Modern Medicine," C. V. Mosby Co., St. Louis, 1922, p. 480.

Mariette and Burke: "The value of iodine in intensive doses in the treatment of tuberculosis," Am. Rev. Tbc., 1926, 14:89-93.

Meek: Personal Communication.

Moeller and Von Magnus: "Investigation of bronchial affections by means of iodine preparations (Iodumbrin and Lipiodol)," Acta Med. Scand., 1926, 63:174-183.

Nather and Sgalitzer: "Zur Technik der Bronchographie," Zentrlt, für Chirurg., 1925, 28:1534.

Nicaud and Dolfus: "Contributions a l'etude du diagnostic des dilatations des bronches par l'exploration radiologique apres Lipiodol," Presse Med., Paris, 1924, 32:817-818.

Peterson: "Iodine in tuberculosis," J. A. M. A., 1926, 1995.

Reinberg: "Roentgenstudien über die normal und pathologische Physiologie des Tracheo-bronchialbaumes," Fort. a. d. Geb. d. Roentgenstr., 1925, 33:661-671.

Ritter: Cit. Mariette and Burke.

Sauerbruch: "Chirurgie der Lunge," 1921.

Sergent et Cottenot: "L'etude radiologique l'arbre tracheo-bronchique au moyen des injections intratrachéalis de Lipiodol," Bull. et mém. Soc. Med. d. Hôp de Paris, 1923, 47:693.

Idem: "Nécessite des injections intratrachéalis de Lipiodol four le diagnostic radiologique de la dilatation bronchique," Bull. Acad. de Med., Paris, 1924, 91: 93-100.

Idem: "Ce que la clinique fent demander auz injections intratracheal de Lipiodol dans le radiodiagnostic des affections de l'appareil respiratoire; difficultes et erreurs d'interpretation," Presse Med., Paris, 1925, 33: 500.

Sgalitzer: "Kontrastfuellung des Bronchialbaumes," Archir. F. klin. Chirurg., 1925, 138:197.

Idem: "Voraussetzungen für eine intrabronchiale Einfuehrung von Medikamenten," Arch. f. klin. Chirurg., 1926, 140:305-319.

Sicard et Forestier: "Methode generale d'exploration radiologique par l'huile iodée injections lobaire," Bull. et mém. Soc. Med. d. Hôp. de Paris, 1922, 46:463.

Idem: "Exploration radiologique par l'huile iodee," Presse Med., 1923, 31:493-496.

Idem: "L'huile iodée en clinque: Applications thérapeutiques et diagnostiques," Bull. et mém. Soc. Méd. d. Hôp. de Paris, 1923, 47:309.

Idem: "L'exploration radiologique des cavités bronchopulmonaires par les injections intra-trachealis d'huile iodee," Jour. Med. France, 1924, 13:3-9.

Idem: "Exploration with iodized oil," Brit. Jr. of Radiol., 1926, 31:239-253.

Starling: "Principles of Human Physiology," Lea & Febiger, Phila., 1915, p. 681.

Waters, Bayne-Jones, and Rowntree: "Roentgenography of the lungs," Arch. Int. Med., 1917, 19:538-549.

Weingaertner: "Physiologische und topographische Studien am Tracheo-Bronchialbaum des libenden Menschen," Arch. f. Laryngol. u. Rhinolog., 1919. 32: 1-88.

Yankhauer: Cit. by Lynah and Stewart.

DISCUSSION.

Dr. Erwin Schmidt (Madison): It has been a long time since in any of the large clinics we have noticed the large fibroid tumors and large cancers. This has been due to the fact that the public has become educated more or less gradually, and now you will find these people more easily handled medically.

The accidental discovery of the fact that a foreign body instead of going down the oesophagus would go down the trachea when the upper pharynx is anesthetized will make possible this procedure so that every man will be able to use it. It is a very easy procedure to do, it is fool-proof, and as far as we can see it is practically safe.

One of the fields in medicine which has been very difficult to clear up has been the different kinds of bronchiectasis. The cases of bronchiectasis that you will see in any of the large clinics, for instance, in the foreign countries, are cases that are very much advanced. This method will make it possible for the ordinary man to make a much more careful diagnosis and take care of these people before they have such advanced pathology that the only procedure left is a pneumonectomy, which carries a rather high mortality. It is another aid in our differential diagnosis and is a great help in rendering the lungs capable of proper attention or in taking care of people who have a pathology in the lower lobes.

I think this accidental discovery of Dr. Ochsner is a procedure which you should consider, because a great many of these distressing chronic coughs in which the diagnosis may be an early tuberculosis, a beginning bronchiectasis, a lung abscess, or something else, can be cleared up very early before the pathology advances.

Sauerkraut in the Treatment of Vomiting*

BY WILLIAM S. MIDDLETON, M.D.

Madison

The title of this brief report in itself suggests a paradox. Friedenwald and Ruhräh[1] for instance thus summarize the dietetic status of cabbage and sauerkraut: "Cabbages contain a considerable quantity of sulphur, and on this account are apt to cause flatulence; where digestion is good, however, they are considered a wholesome form of food. Sauerkraut is cabbage prepared by placing salt between layers of shredded cabbage leaves and then subjecting the mass to pressure. This presses out the juice, after which acid fermentation sets in. Owing to the fermentation it produces sauer-

*From the Department of Medicine, University of Wisconsin.

kraut is considered indigestible." Certainly popular repute favors this judgment.

The following striking experience served to raise a question as to the uniformity of such results from the ingestion of sauerkraut:

Case I: E. G., a male, white student, aged 23, was admitted to the University Infirmary March 28, 1924, in a condition of marked cardiac decompensation. A double aortic and a double mitral lesion of rheumatic origin formed the background for the circulatory break. The most distressing symptom was vomiting, which had persisted for twenty-four hours up to the time of admittance. This disquieting symptom continued for four and one-half days after entrance to the hospital, recurring at short intervals uncontrolled by the ordinary measures and without relation to the ingestion of or abstinence from food and drink.

The patient had repeatedly requested sauerkraut; but until the consent of the father, a physician, had been obtained, the kraut was withheld. Against our judgment a moderate helping of sauerkraut was eaten by the patient, whose only subsequent complaint was that the kraut had been cooked. In several hours a second large plate of raw sauerkraut was consumed with no ill effect. Indeed, emesis had ceased after the first portion of sauerkraut and there was no recurrence through the tedious period of regaining compensation.

At the time the psychic factor was deemed an adequate explanation. The patient had craved sauerkraut; and when exhibited, it alone was retained. However, as similar cases presented themselves from time to time, the measure was submitted to repeated trials. Always the fondness of a patient for sauerkraut served as a criterion for its exhibition. Never was it used where an aversion or distaste was volunteered. At first only cases of cardiac decompensation with nausea and vomiting were so met. Thereafter it proved useful at times in the control of vomiting in catarrhal cholangitis. In several cases of hyperemesis gravidarum there was surprising relief on the ingestion of sauerkraut. Vomiting subsequent to paracentesis abdominis in a patient suffering from tuberculous peritonitis stopped after eating a small portion of sauerkraut. In all over twenty instances of persistent vomiting, for the most part in cases of cardiac decompensation, have been successfully met by this apparently paradoxical measure.

From the outset the use of sauerkraut in this relation was purely empirical. The composition of sauerkraut as given by Atwater and Bryant[2] offered no explanation:

Average: Water, 88.8%; protein, 1.7%; fats, 0.5%; carbohydrates, 3.8%; ash, 5.2%. Food value: Calories per pound, 125.

(These figures compare very closely with those quoted by Friedenwald and Ruhräh.) The report of Lehman and Gibson[3] on the beneficial results in cases of vomiting from the administration of 50 to 200 c.c. of a 2 per cent sodium chloride solution offered a tentative explanation for the efficacy of sauerkraut under similar conditions. Lehman and Gibson concluded that by reason of a "reestablishment of a normal peristalsis when there is a tendency to reverse peristalsis" sodium chloride is effective in cases of persistent vomiting. This would not seem a complete answer to the question, nor is the explanation apparent in the chloride depletion studies of high intestinal obstruction[4].

Sauerkraut is obviously high in sodium chloride content, the exact figures for which Miss Marian E. Stark of the Department of Physiological Chemistry has derived as follows:

Juice: 1.864 gms. per 100 c.c.; 1.813 gms. per 100 gms. (Average of 8 cans, including 7 brands.)

Solid: 1.736 gms. per 100 gms. (Average of 7 samples, including 5 brands.)

The average portion of sauerkraut weighs 100 grams, so that it may be concluded from the above figures that a patient would receive between 1.736 and 1.864 grams of sodium chloride in each portion. Lehman and Gibson advocated an equivalent of 1 to 4 grams of sodium chloride in their hypertonic salt solution. The objection, which they voiced, to its use in nephritis with edema where salt restriction may be desirable, should be observed in the use of sauerkraut.

No panacea for vomiting is herein offered; but sauerkraut affords a useful addition to the medical armamentarium in vomiting occurring in individuals professing an antecedent taste for the preparation. The time honored advice of Benjamin Rush is recalled in relation to the utilization of "home remedies": "Do not condemn or oppose unnecessarily, the simple prescriptions of your patients."

BIBLIOGRAPHY

(1) Friedenwald, J., and Ruhräh, J.: Diet in Health and Disease, 5th Ed., 1919, Phila., page 140.

(2) Atwater, W. O., and Bryant, A. P.: The Chemical Composition of American Food Materials, U. S. Department of Agric. Bul. No. 28, Wash. 1906, page 69.

(3) Lehman, E. P., and Gibson, H. V.: A Simple Immediate Treatment for Vomiting, J. A. M. A., Vol. 84 (April 25), 1925, page 1259.

(4) Haden, R. L., and Orr, T. G.: Use of Sodium Chloride in Treatment of Intestinal Obstruction, J. A. M. A., Vol. LXXXII, No. 19 (May 10), 1924, 1513.

PREVENTIVE MEDICINE

W. D. STOVALL, M. D., Editor

A Plan for Health Organization in Communities Without a Full-Time Health Department*

BY W. W. BAUER, M.D.
Commissioner of Health
Racine

The subject which has been assigned for this morning's discussion is one which is of vital importance because it affects a very large proportion of the people of our state. The United States Census Bureau estimated 37% of Wisconsin's population in 1920 to be in cities of 10,000 or more. The U. S. Public Health Service listed 20 Wisconsin cities with health officers in 1925. Not all of these were full-time and even if they were their total population now probably does not greatly exceed 40% of the population of the state. This means that not less than 60% of the people of Wisconsin are living in communities which do not have full-time health organizations. I believe we may state it as an undeniable truth that without full-time organizations no health program can reach its highest efficiency. At the same time, we must recognize that full-time health organizations in the smaller communities are not yet feasible, not so much because their cost is beyond the reach of these communities, as because the people are not in a state of mind to spend the necessary money for full-time health service.

Before discussing the plan which I propose to outline for you, it is, perhaps, wise to consider briefly the legal basis for health work in Wisconsin. Any plan must be based on the requirements of the Wisconsin law. To begin with, the statute not only authorizes but requires every city and village to organize a Board of Health. Counties may not, but it is hoped that county health units will soon be authorized. Adjoining communities may, however, provide joint health service under the present law. If the local government is negligent, then the State Board of Health may organize the local board and charge the expense to the local unit. When the local Board of Health is organized, it finds itself perhaps the most powerful unit of government. Its powers are practically unlimited except for the authority to levy taxes. It may issue any order which it deems necessary for the preservation of the public health and may call upon the law-enforcing agencies for cooperation. The courts have held that the preservation of the public health justifies emergency acts on the part of the health authorities, which go very far in the regulation of personal conduct. Health officials have the right, which is denied the police, of entering premises without warrants and of detaining on suspicion those whom they believe, by reason of disease, to be dangerous to the public health. With these broad powers it is plain that much of good or of evil may come out of their exercise. It seems scarcely necessary to point out that only the most discreet and skilful use of the health authority will produce the desired results.

It is plain that any health organization must rest upon the broad statutory authority we have here briefly outlined. It must begin with a Board of Health. This should consist of not less than three people and, in my opinion, not more than five. It should have at least one member who is also a member of the town, village or city governing council since this member will be in a position to be useful in securing funds and sponsoring local legislation. While the Board of Health may make regulations which are legally effective when published, it has been my experience that these are most easily enforced if they have been enacted into local ordinances. The board should include at least one woman because the work of a Board of Health is so largely concerned with the welfare of women and children. I believe that a representative of the Board of Education might well find a place upon the Board of Health. If possible, every member of the board should have what we call the social point of view, since Boards of Health must deal with people in the mass rather than as individuals.

The Board of Health must have an executive. Since we are dealing with part-time health programs, this choice is not an easy matter. The

*Read before the Section of Health, Wisconsin Conference of Social Work, Milwaukee, Oct. 5, 1926.

executive or health officer should be a doctor; more than that, he should be a successful doctor, both from a business and a professional viewpoint. This means that he must either be paid enough to make it worth his while or nothing at all. It will obviously be impossible to secure competent service for nothing and, therefore, it seems to me that the only way to get competent part time service is to pay liberally for it. There are in Wisconsin and other states a number of successful health officers who are not doctors and yet I feel confident in saying that these are the exception rather than the rule and that the predominantly medical character of public health work and its specialized nature requires, in most cases, the judgment and background which only a physician can bring to it, and which not every physician can. If a non-medical health officer is employed, it will be necessary to provide for the employment of a doctor when needed for contagious disease diagnosis, examinations of school children and similar functions.

I believe that a part time health officer can conduct a fairly successful health program if he has the following organization employed on a full-time basis, or at least giving a definitely specified amount of time to health work:

He must have a clerk and a definite office with specified office hours and telephone service to receive complaints and requests for service. This clerk has charge of the office records, birth, death, and marriage certificates, contagious disease reports and correspondence.

There should be a sanitary inspector, who is also a quarantine officer. In this connection, may I emphasize the fact that it will not do to employ in this capacity a political appointee or a cast-off from some other employment. A sanitary and quarantine officer ought to be sufficiently well educated to learn and understand the law under which he works. He should be capable of keeping good records of his work and he should understand enough about contagious disease to make intelligent disposition of quarantine problems, and to recognize indications which may have an important bearing on the spread of contagious disease. He should also, in the course of time, learn the essential facts about smallpox vaccination, typhoid fever vaccination, diphtheria prevention and the work of the nurse, so that he may be able to answer questions and support the program of the department in his numerous contacts with the public. It is plain that such an officer is not to be hired ready-made in the ordinary community. It is possible, however, in every community to hire a young, intelligent man who can be taught these things by the health officer and who can be developed into the kind of inspector I have tried to describe. He must be firm and yet tactful, and he must have a sense of justice. He must be as free as possible from preconceived notions about sanitation and the relation of the environment to health and disease. It goes without saying that he must be offered a salary sufficient to tempt a man of the right qualifications.

The next necessary item in the plan is nursing service and, before going farther, I would say that if a choice is necessary between a sanitary officer and a nurse, the nurse should be chosen. There is no use advising the employment only of trained public health nurses, because these are practically not to be had. It is possible, however, to choose a nurse with a good basic education, training in a good hospital and possibly with some experience in an organized health department. It is very important that she have the qualities of patience, tact, and amiability, as well as industry and other professional qualifications. She must remember that she is not qualified to diagnose any disease nor to prescribe treatment for it. She must not presume to say which doctor is best nor must she criticize any physician, nor recommend that a patient leave one doctor in favor of another. These restrictions are placed upon her, not because we believe that doctors never merit criticism, but because the work of the public health program will not be forwarded by creating antagonism among the medical profession. The duties of the nurse in the absence of a sanitary officer would begin with quarantine, contagious supervision and the release of quarantine. If there is a competent sanitary officer, she may be relieved of these duties except in times of epidemic. She should be on guard to see that babies' births are properly registered by looking up in the records to find the birth registrations of babies who come to her attention. It may be necessary for her to substitute to a limited extent in the duties of a school examining physician. It is extremely difficult to maintain the principle that the nurse must not diagnose and at the same time to place upon her the duty of picking out at least some of the correctible defects in school children. The solution here seems to be in the undoubted fact that any intelligent person may have a sus-

picion about something physically wrong with the child and may then refer that child to a physician for examination.

Perhaps you will think that what I have described is in reality a small full-time health department. As far as the clerk, inspector and nurse are concerned, it certainly ought to be full-time, but I believe that until there is a full-time health officer, any health organization must be considered on a part-time basis. You will note that I have designated vital statistics, contagious disease control and sanitation as the functions of this part-time organization. I have done this because I believe these to be absolutely essential as a basis. We should not, however, be satisfied to stop here. Our efforts should be to develop this part-time organization into a full-time health department. The best way to accomplish this is to perform the three basic services with such high efficiency that the department will gain public respect and confidence, and at the same time to educate quietly but persistently with a view to developing public demand for more complete health service.

It is at this point that voluntary organizations must be considered. First we have the Anti-Tuberculosis Association. The Christmas Seal sale will furnish money for chest clinics and frequently for brief demonstrations of other phases of health work. There is in every community a sufficient number of individuals with a social point of view and some leisure time so that voluntary committees can be formed to demonstrate certain kinds of health work, notably baby clinics and child welfare. It is frequently possible to secure examinations of school children by volunteer medical and dental service. In coordinating volunteer work with official work great care should be taken not to start with an ambitious program. A case in point is a city where the dental profession volunteered its services and examined and recorded the dental and mouth conditions of more than 8,000 school children. Because of the small health department personnel these could not be followed up. They were not even used to compile statistics. Consequently, the entire project was a waste of valuable time on the part of the dentists, the schools and the health department nurses assisting. It would have been better to examine 1,000 children, compile the statistics, follow up the cases, secure corrections and then use the information to stimulate the development of dental examining facilities on a permanent basis.

It is particularly important that official and volunteer services should not duplicate. The Health Officer is the logical leader, and voluntary effort should center about his organization, support it, and aid him in improving it and developing it into full-time service. Voluntary health services should not be too long continued. The public health is a responsibility of government, and government should assume it. Voluntary organizations should aim to educate and stimulate; they should work themselves out of a job as promptly as possible. The public is growing very discriminating and evidences of inefficiency in a health program will very soon cripple the whole movement.

One might go on indefinitely discussing this matter of health organizations on a part-time basis. Since our time is limited, I am going to leave these few remarks for further discussion by the speakers to follow, who are much better qualified to speak on this subject than I am. I believe, however, that I am justified in saying that a small, efficient part-time organization of limited scope is greatly to be preferred to a part-time organization which does many things ambitiously and few things thoroughly.

THE JOURNAL CLINIC

Lumbar Spine Injuries; Case Reports

BY C. A. H. FORTIER, M.D.

Milwaukee

The two lateral views of lumbar spine illustrated here were taken of two different individuals several months apart. Both cases had histories of severe injuries; the first was overturned in an automobile accident and the second in an industrial accident. There was no paralysis in the first case; although there was a period of unconsciousness. When the patient presented himself for x-ray examination he complained of "lumbago."

This examination showed a more or less oblong

Figure I.

Figure II.

fragment of the first lumbar vertebra separate from upper outer surface of this vertebra and a compression of the intervertebral space above. This fragment was turned outward and downward so that the upper outer angle of the vertebra was superimposed upon the *lower* outer angle of the same vertebra. There was only a little lameness and an uneventful recovery. In case No. 2 with almost the same type of injury with the radiograph taken a long period *after* the accident, the patient presented himself walking with great difficulty even with the aid of crutches.

There was a progressive loss of function. It is with regret that we can not give the end result in this case. The prognosis was unfavorable. These two radiographs so similar in appearance illustrate the widest divergence in end results and moreover show that bone trauma does not measure the disability present.

Abstract of Papers Before University of Wisconsin Medical Society

C. D. LEAKE, EDITOR

THE 12th INTERNATIONAL PHYSIOLOGICAL CONGRESS

BY WALTER J. MEEK

Professor of Physiology

The 12th International Physiological Congress met in Stockholm, Sweden, August 6-10, 1926. There were 590 delegates from all of the important laboratories of the world and over 300 papers were presented. The meetings were held in the magnificent City Hall of Stockholm and the delegates were showered with hospitality and kindness from the Swedish people. The outstanding event of the Congress was the Civic Banquet, in which a little food floated around in large quantities of delectable beverages. Upon the invitation of the American Physiological Society, it was decided to hold the 13th International Congress in the United States in 1929.

There were no outstanding papers but the great number of significant contributions indicated the important progress made in Physiology and related sciences in the past three years. Among the most interesting of the demonstrations was the one arranged by Professor Joseph Barcroft of Cambridge, England. Barcroft has finally demonstrated that the spleen has an important function in the body. It serves as a reservoir for red blood cells and thus, in exercise, asphyxia, or other emergency conditions, can throw a considerable amount of hemoglobin into the blood stream to assist in

supplying oxygen to the tissues. Barcroft has prepared dogs so that the spleen is exposed on the outside of the body. By obtaining a tracing on a glass of the normal size of the spleen, it can be demonstrated, after exercising the animal, that a considerable reduction in the splenic volume has taken place. Along with this there is a rise in the number of red cells in the circulating blood.

Professor Adrian, also of Cambridge, demonstrated a new electrometer which is sensitive to one hundredth of a millivolt. By means of this instrument, he has detected sensory nerve impulses and is engaged in studying the sensory impulses sent up a nerve upon stretching or moving the muscle from which it leads.

The report of Voronoff received the widest publicity due to continued interest in the problematic success of rejuvenation. Voronoff's report was rendered in the same spectacular but crude manner which he has displayed on former occasions. He showed pictures of decrepit old men before testicular transplantation and then showed pictures after the operation. As Professor Carlson of Chicago pointed out, the chief difference between the pictures seemed to be that after the transplant the men had their clothes pressed, wore flowers in their buttonholes, and had a haircut and shave. Uncritical work of this sort was severely condemned by the members of the Congress.

Other significant papers were the following: Anrep presented evidence that there is vasomotor control of the coronary circulation; Casimir Funk of Warsaw, formerly of New York, has isolated a chemically pure product from insulin preparations by means of flavianic and picric acid; Loewy demonstrated the humoral inhibition of the heart; Overton showed how very dilute hydrochloric acid rendered the skin of the frog semi-permeable; Magnus of Utrecht gave an important discussion regarding the maintenance of posture showing that eye reflexes are necessary for the retention of rigid position.

Oct. 13, 1926.

THE PREVENTION OF POST-OPERATIVE PERITONEAL ADHESIONS

BY ALTON OCHSNER, M.D., AND
FRANK MASON, M.S.
Department of Surgery

This is a preliminary report on a series of experiments and clinical studies which are being made to determine whether or not a practical method is available for the prevention of post-operative peritoneal adhesions. Peritoneal adhesions offer one of the most difficult problems in surgery. At times it is desirable to have adhesions form; at other times peritoneal adhesions may result in making a chronic invalid of an otherwise healthy individual as a result of continued intestinal obstruction. The clinical recurrence of adhesions is one of the most difficult things to handle in surgery.

Experimental efforts to prevent post-operative peritoneal adhesions have been undertaken by many investigators and a variety of substances have been employed. Many of these have been hailed at first with enthusiasm only to be found, upon critical examination, to be useless. Flooding the abdominal cavity with oxygen has not been successful; the use of adrenalin and of various bland oils has failed; living membranes have been employed with no success, and a variety of digestive agents have been studied without yielding a satisfactory result. It has been found that there is a wide individual variation in the tendency to form adhesions even under what seems to be identically the same condition. It has been noted that persons apt to develop keloids seem to be those in whom peritoneal adhesions are most likely to form.

Of all methods proposed to prevent post-operative peritoneal adhesions, the use of digestive agents seems to offer the best prospect of success. If the fibrin can be digested as fast as it is formed or before it can be organized, it would seem that the adhesions could not possibly develop. The difficulty has been to find a satisfactory digestive agent, i. e., one which may be employed in sterile solution, which is not toxic to the individual, which will only attack fibrin formation, and which will not have any effect upon the normal tissues of the abdominal cavity. Pepsin solutions have been employed without satisfactory results. Recent work by German and Japanese investigators, under the influence of Peyer, have shown that certain vegetable ferments may fill these conditions.

In this study two vegetable ferments have been employed—papaine and "caroid." The latter is a proprietary combination of vegetable ferments employed in industrial work. Laparotomies have been done in paired sets of rabbits. In both rabbits of the set, peritonitis is induced by means of tincture of iodine which is applied directly to the exposed intestines. The abdominal cavity of

the control animal is then closed. The abdominal cavity of the treated animal is flooded with 50-100 c.c. of 1:400,000 "caroid" solution in sterile physiological saline. This is allowed to remain in the animal. Both animals convalesce under identical conditions. At the end of varying periods of time, from 3 to 15 days, the two animals in a set are killed and post mortem examination of the abdominal cavity is made. It has been found in all cases that the control animals have a marked peritonitis with the development of adhesions of varying size and number. The treated animals have been found to be free from adhesions and the inflammatory processes have never been found to be as great as in the control animals. The "caroid" solution seems to be more helpful than equivalent amounts of papaine. Clinical trials are under way, reports upon which may be presented later. There is of course no evidence from this work that the recurrence of adhesions may be inhibited by these means.

The solutions are non-irritating, are apparently absorbed without discomfort, and seem to have no untoward effect upon the convalescence and recovery of the animals. It remains to be seen how far these findings may be applied in the clinic.

DISCUSSION

This interesting paper of Dr. Ochsner was illustrated by very splendid colored lantern slides and was discussed by Dr. Leake and Mr. Baernstein.

In the business session which followed the meeting, the following were elected to office in the University of Wisconsin Medical Society: President, Dr. Percy M. Dawson; Vice-President, Dr. William S. Middleton; Secretary, Dr. Chauncey D. Leake.

Oct. 13, 1926.

Pulmonary Gangrene, Terminal Stage; Case Report

BY I. JOSEFSBERG, M.D.
Milwaukee

Male patient, 55 years of age. Gives history of sudden purulent bloody vomiting about six months ago. Remembers of coughing up blood about thirty years ago. Under the fluoroscope very slight motility of ribs and diaphragm was seen. The posterior anterior radiograph in erect posture was caught in a moment of expectoration and there was seen a thick opaque streak upon the tracheal patency. The larger cavity was seen surrounded by a still larger consolidated area extending to the mediastinum.

Fragments of lung tissue but no elastic tissue was found in the sputum. Patient died seven days later. Permission for obduction not obtained.

Figure I.

Aspergillosis of Lungs and Its Association With Tuberculosis

Mary E. Lapham, Highlands, N. C. (Journal A. M. A., Sept. 25, 1926), believes that aspergillosis of the lungs is a disease which clinically and pathologically so closely resembles tuberculosis that it usually escapes recognition and is diagnosed as tuberculosis. There is a common belief that this mold is purely saprophytic; that it can live only on pre-existing lesions in the lungs, and that it cannot attack living tissues because it has no primary pathogenic powers. To show its pathogenic properties, nine rabbits were inoculated intravenously with varying doses of spores, from a pure culture of Aspergillus fumigatus. In human beings there are two general types of aspergillosis of the lungs, just as there are in tuberculosis, the wet and the dry; of the wet, or parenchymatous type, there are varieties corresponding to the location of the attack and the tissues chiefly involved. In none of the many cases of supposed pneumonia has the diagnosis of aspergillosis of the chronic pneumonia type been made during life. The insidiousness and the latency of the interstitial type of aspergillosis of the lungs makes the course of the disease very like the same type of tuberculosis. It occurs when the spores pass through the walls of the alveoli and begin their growth within the interstitial tissues. Just as it may happen in tuberculosis, these tubercles may remain discrete or become conglomerated; may vary in size from invisibility to nodules as large as a nut, and may become sclerosed by connective tissue infiltrations. The future course of these invasions, their clinical, physical and roentgenographic manifestations, are so similar to those of tuberculosis that it may not be possible to make a differential diagnosis without inoculations and cultures. Tuberculin is of no diagnostic value whatever because aspergillosis gives precisely the same reaction as tuberculosis. During the last three years Lapham has had ten cases of positive cultures which were sent as cases of tuberculosis. She asks, if ten cases of aspergillosis are found in three years in an obscure village on top of the Blue Ridge Mountains, how many cases would be found if routine cultures were made from the sputum of every case of tuberculosis? Here is a disease that is capable of causing pleurisy, acute and chronic; bronchitis, acute and chronic; pneumonias, acute and chronic; emphysema; bronchiectasis; atelectasis; sclerotic fibrosis; tubercules; cavities; endarteritis; thrombosis; infarcts; hemorrhages; asthma. Would it be strange if such a disease should seriously complicate or even inhibit recovery in a case of tuberculosis?

THE WISCONSIN MEDICAL JOURNAL
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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

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6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Inquiries.* Any inquiry with reference to pharmaceuticals, surgical instruments or any other manufactured product which you may need in home, office, sanitarium or hospital, will be promptly answered. Address all inquiries to Wisconsin Medical Journal, or write direct to Cooperative Medical Advertising Bureau, 535 North Dearborn Street, Chicago, Illinois. The Bureau is equipped with catalogues and price lists and can supply information by return mail.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

RHEUMATIC FEVER

WITH the mortality from heart disease reaching a figure which has out-distanced both tuberculosis and cancer there has been a marked revival of interest in the causes of heart disease. One rarely picks up a medical journal in which there is not at least one article upon some phase of the heart disease problem. Naturally the one infection which is most often responsible for organic heart disease, rheumatic fever, has been the subject of renewed study. As long ago as 1797 Baillie mentions rheumatism as a cause of enlargement of the heart. In 1836 Bouillard wrote "In acute severe articular rheumatism, generalized, the coincidence of an endocarditis, a pericarditis or an endopericarditis is the rule, the law, and the non-involvement the exception." That expresses all that we know today except for a few additional points of epidemiology.

Mackie,* from whose article the above historical facts are taken, has recently analyzed 393 cases of rheumatic fever and 89 cases of chorea. He calls attention to the statistics of the Surgeon General's Office which revealed that during the draft in the late war 2 per cent of men were rejected on account of damaged hearts. Among school children examined in New York the incidence of heart disease was found to be almost 2 per cent.

If two out of every hundred persons in the United States have heart disease there must be 2,400,000 people with damaged hearts. Possibly that is too high a figure but there must be in the neighborhood of 2,000,000 cardiac cases of all forms in the country.

Rheumatic fever is preponderatingly a disease of childhood. The largest number (20.8%) occurred between the ages of 10 to 15, although first attacks as late as the 55 to 60 age group occasionally occur. Chorea shows itself as a disease exclusively of childhood and adolescence, the greatest number of cases occurring in the age period between 5 to 10 years. The incidence of heart disease in the first attack of rheumatic fever is most important. On this point Mackie has some most interesting figures. Up to 5 years the incidence rate is 61.5 per cent. Between the ages of 5 and 15 the rate is 78 per cent. It then falls gradually to 32.5 per cent in the 55 to 60 group. A person who has his first attack of rheumatic fever between 30 and 35 years stands a 50-50 chance of having his heart permanently damaged. Chorea on the contrary has the highest incidence rate of cardiac involvement in adolescence when the fewest cases occur. In other words, a young person who gets chorea between 15 to 20 years has a 50-50 chance of recovering without a damaged heart.

Mackie emphasizes anew the point that has been so often made and yet is still too little appreciated that it takes many months for the heart damage to develop to a stage when it is recognizable. He had opportunity to follow carefully 25 cases in which the development of mitral stenosis was observed. Twenty-two cases developed within twenty-four months. In the other three cases there were intervals of five to over six years between the initial attack of rheumatic fever (one case of chorea) and the recognition of the mitral lesion.

The role of focal infection, particularly tonsillar infection, is carefully considered. Removal of tonsils does not protect either against initial attack or against recurrences of rheumatic fever. However tonsillar infection was about twice as frequent in the rheumatic fever series as in a series of 400 controls. Dental sepsis, whatever that means, was practically the same in the two series. On the whole Mackie seems inclined to believe that tonsillar infection has some connection with attacks and recurrences of rheumatic fever. The difference in his figures is 27.5 per cent incidence rate of tonsillar infection among the controls and 58.8 per cent among the rheumatic cases.

One paragraph in regard to recurrences deserves quoting in full: "Much of the data which has been presented leads one almost inevitably to the conviction that rheumatic fever cannot be regarded as an acute infection terminating after a longer or shorter interval. It is probably incorrect to regard the secondary attacks as a simple reinfection. The concept of rheumatism as a chronic, slowly progressing disease characterized by intervals of calm simulating complete recovery, and periods of activity which entail further damage to the organism,

*Mackie, Thomas T.: An Analytical Study of Three Hundred and Ninety-Three Cases of Rheumatic Fever and Eighty-Nine Cases of Chorea. Amer. Jour. Med. Sc., 172:199 (Aug.), 1926.

seems more accurately to correspond with observed phenomena."

Mackie also calls attention to the differences in the manifestations of the infection in children and in adults, laying emphasis upon the slight symptoms in the former which, however, may be coincident with further heart damage.

A practical point which this study brings out is that slight febrile disturbances, with or without joint pains in a child or young adult who has had an attack of acute rheumatic fever, are very likely rheumatic and should be treated with due regard to the consequences.

Another exceedingly important point is that prolonged rest after an attack is imperative. Also frequent observation during periods of quiescence will help to keep children from overstraining damaged hearts.—L. M. W.

A REPLY.

THE October number of the CHICAGO MEDICAL RECORDER presents an editorial entitled "Professional Ethics," commenting on an editorial printed in a recent issue of the CHICAGO JOURNAL OF COMMERCE. The substance of the latter editorial is to the effect that when a poor woman of Dayton, Ohio, found herself with a very sick child, none of the Dayton doctors who were called were willing to attend the child unless their fee was assured in advance; that the child died, and the coroner made the statement that, had the child had prompt and efficient medical attendance, it would, in all probability, have lived, the coroner stating that it was inconceivable that Christian men, whether doctors or laymen, could be guilty of such neglect.

The standing of the CHICAGO MEDICAL RECORDER and the CHICAGO JOURNAL OF COMMERCE is such that statements coming from them are to be given heed; but in such an instance, we should need to be shown: first, that the facts were as alleged; second, that if they were so proved, that the physicians who were so unmindful of their professional obligations were truly representative members of the profession. This, because such want of humanity is not characteristic of real physicians, and anybody who asserts the contrary libels our profession.

We have blacklegs and sordid practitioners *amongst* us, but they are not *of* us. And any so-called physician, really guilty of such practices as those alleged, should be drummed out of our camp with no more consideration or pity than would be accorded a soldier who befouled his uniform by treachery to his fellows and to his corps.

Ethics? We refuse to stultify ourselves or besmirch our pages with an attempt to defend our code against such irresponsible questioning of it. A man's a man, and the study of medicine and the practice of the art do not tend to lessen his manhood or his humanity. But it would be too much to expect that our finest principles and the examples of our finest practices could raise all blacklegs and all natural-born mercenaries to the high estate of the average practitioner of medicine.

HONEST PAY FOR HONEST WORK

THE work of public administration is not all glory, notwithstanding the inward satisfaction felt from work well done. All too often it is a thankless job. When, moreover, its burdensome and responsible tasks are entrusted to underpaid public servants, the wonder is that their allegiance to the cause can remain undimmed.

Wisconsin, fortunately, is served by many men of this sacrificing type. But this does not justify a state's continuing policy of paying less than a just reward for expert help.

For well over a decade the state has had the protective service of five deputy state health officers—agents of the State Board of Health. Their counsel, diagnostic aid, and generally helpful visitation have been at the command of the officials and citizens of every county. In enacting the deputy state health officer law the Legislature of 1913 fixed the maximum salary of these officers at $3,000. However equitable this may have been "before the war," it is by the best minds today regarded as unreasonable and without further justification.

There is, first of all, the economic warrant for a more generous dealing with these workers. A rising scale of living costs does not slide by and leave them untouched, striking everybody but themselves. They must shoulder their portion and be good sports in so doing.

The work these medical men do is hard. Not always are their week-ends and holidays their own. The field from which to fill these posts is sparse, the men chosen are few. Not many men of the special training, adaptability and availability de-

sired may be had when vacancies occur. Always the salary offered—limited as it is by inexorable law—rises up to repel good men from adopting this line of public duty, even though the will to serve rules in the heart.

Men of the medical profession, furthermore, are entitled to a reward in service of the public more nearly approximating that to be earned in private practice. Years spent in medical and premedic studies, internship and early practice have likely given rise to an aching void in the region of the young doctor's checking account. When at last he has built up a good practice he can begin, and then only, to establish adequate insurance and investments to protect his family and create a comfortable standard of living for their advancing years.

No less rigid should be the standards we allow our medical men in the public service. Theirs is expert and scientific knowledge brought to bear upon society's ills. Their obligations to themselves and their families are not transcended by those in private practice. A three-thousand-dollar income marks the borderline of underpaid social service. This should not be.

It is proposed to ask the Legislature of 1927 to remove this barrier and to leave the salary of deputies to the discretion of the State Board of Health. Such a measure will need the cooperative support of the Department itself and the physicians of the state. None can see its reasonableness better than they.

It is in the nature of a public duty to promote better paid public health service. Hence it does not seem out of place to ask of our Wisconsin physicians that they put in a word with their legislators in favor of this bill, and to make their influence count for its passage. It is asking little but can mean much for better social service as well as for the continuing high standing of the medical profession in Wisconsin.—C. A. H.

SELLING HEALTH

HERMAN BIGGS, speaking as a health officer, coined the slogan: "Health is Purchasable." The public has grasped the idea and costly sewage disposal and pure drinking water plants are part of their response to the sanitarian's challenge. This is in the nature of a public acceptance of a statesman's dictum.

Today, the individual citizen, more prosperous than he has ever been before, is considering if *he* may not purchase greater *personal* life insurance for himself and family. If public health is purchasable, why not private health? His groping desire offers a golden opportunity to the family physician. It is even conceivable that there is presented, today, as lucrative and honorable an opening for a new specialty, viz., "private health physician," as "Eye, Ear, Nose and Throat" was a generation ago.

A very convincing argument has been made by Dr. W. A. Evans, that the success of the practitioners of the latter specialty is due largely to the sound *family economics* of the service they render. As an illustration, he cites the instance of the workingman with failing vision which, uncorrected, dooms him to the labor "scrap heap". With properly refracted eyes, his earning capacity is prolonged for many years. If so, of what concern is it to him to be asked to pay a $25 or $50 medical service fee, the results of which consultation will enable him to earn several thousands more in wages?

Looking forward, the specific ways in which "health physicians" may produce similar "large profits on small investments" for their clients may not seem so obvious as the one cited. However, it takes no stretch of the imagination to conceive of many. And *imagination* is one of the chief characteristics which differentiate the forward looking man from the clod. And the successful men of twenty-five years hence will be those who are the forward looking men of today and tomorrow.—*H. E. D.*

WAR AND INDUSTRIAL GASES

THE late effects of the inhalation of poisonous gases upon the lungs do not seem to be definitely known to a great many physicians. Data now at hand in human cases and data from carefully controlled experimental animals give us a pretty accurate knowledge of these after effects. The subject is an important one. Some of us are called upon to pass judgment upon a former service man who claims disability as the result of gas during the war. Many of us are seeing men who have been overcome with some sort of gas while at their work and claim ill-health as a result of the inhalation of gas.

[1]Koontz, A. R.: When Do Lungs Return to Normal Following Exposure to War Gases? Arch. Int. Med., 36:204, 1925.

As a general proposition I think it may be laid down as axiomatic that any man who survives the inhalation of a poisonous gas has no lung lesions as a result. If this is too dogmatic, let us modify it to the extent of affirming that the few scattered lesions which conceivably *may* be produced cannot affect the functional capacity of the lungs to any notable extent. In view of the frequent diagnoses of gas-poisoning which are made, these statements will come as a shock and will probably cause acute disagreement. However, let us not theorize about the effects but let us examine the facts.

In the 1920 Report of the Surgeon-General of the U. S. Army is this interesting paragraph: One hundred and seventy-three cases of tuberculosis occurred during 1918 among 70,552 men who had been gassed in action. Of this number, 78 had been gassed by a gas, kind not mentioned; 8 by chlorine; 65 by mustard; and 22 by phosgene. The number of cases of tuberculosis for each 1,000 men gassed was 2.45. Since the annual rate of occurrence for tuberculosis among enlisted men serving in Europe in 1918 was 3.50 and in 1919, 4.30 per 1,000, it would seem to be apparent that tuberculosis did not occur any more frequently among the soldiers who had been gassed than among those who had not been.

The opinion of the British, German, French and Swiss is unanimous. (1) Only in a *very* small percentage (exceptional cases) is there any permanent disability from war gassing, and (2) tuberculosis does not develop more frequently in gas victims than in other subjects.

Recent experiments by Koontz[1] upon dogs which were gassed with minimum lethal doses of various gases used during the late War, which recovered and then were allowed to live for variable periods, showed that only in a minority of instances was permanent damage done; "but this damage is not widespread, is generally confined to small areas, and is generally in the form of small patches of organization, thickening of the bronchial walls with loss of elasticity, or occasional closing of the bronchioles by organized exudate. This small amount of scar tissue can hardly affect the functional efficiency of the lungs." As the lungs of dogs are much more delicate than are those of human beings, it seems reasonable to conclude that no permanent disability could have resulted in men who recovered from gas poisoning.

The situation in industry is quite different from that which occurs in War. In War enormous concentrations of gas are laid down over a small area so that a man caught without a gas mask must breathe considerably more or less concentrated gas before he can be removed from the gas zone.

The first effects of any poisonous and irritating gas when brought into contact with the sensitive laryngeal mucous membrane is to cause immediate closure of the glottis. This is nature's protective mechanism for the lungs. Now if a man can reach the outside air within a period in which he can hold his breath, let us say forty-five seconds to a minute, his first inhalation will be of ordinary air. Even if there is the odor of the gas, the gas will not be in a concentration sufficient to injure the lungs. If the man falls, cannot reach the outside, or for other cause must take a deep inhalation of the gas, he either is killed, if the gas is poisonous enough, or, if he is brought out alive, he may spend some time recovering from the effects. Up to this time there is no evidence that permanent damage is done to his lungs so that he is disabled.

What are the common industrial gases in this part of the country? And what are the systemic effects of these gases? Carbon monoxide, sulphur dioxide, chlorine, ammonia, formalin, nitric oxide are the chief gases. Carbon monoxide causes asphyxia, it is not irritating to the mucous membranes. Recovery is complete. Rarely are there psychoses as after effects. Sulphur dioxide is very irritating. Yet men become accustomed to a considerable concentration of the gas. A large dose would kill, a sub-lethal dose would produce for a time a severe bronchitis. Practically the same can be said about the other gases.

The industrial gas question is now the most important one. The general impression, probably the result of the use of gas in the late War, is that if you smell any strong, irritating odor you are gassed and done for. You are disabled more or less permanently. If you should happen to be in the incubation period of bronchitis or pneumonia at the time, why, the gas caused one or the other of these common diseases.

Let us not lose our heads but endeavor to get at the actual facts in every case of so-called gas poisoning in industry. If we then carefully analyze the case and use our knowledge of physiology and psychology we shall probably make fewer diagnoses of gas poisoning.—L. M. W.

THE PRESIDENT'S PAGE

Joseph F. Smith

County Medical Society Officers

The time of the year is approaching when county medical societies will be holding their annual meetings for the election of officers for the coming year. It is to be hoped that election to office in the county societies will be regarded as a call to service for the local society and for organized medicine in general rather than as a reward for years of practice or long residence in a given community. Officers elected on this basis seldom render any real service to their local societies or to the state and national organizations. Each local society owes it to its own best interests to choose men for its officers who are interested in organized medicine and who are willing to give at least some time and attention to the interests of the medical organizations in which they are privileged to hold membership.

The Increase in State Medical Society Dues

The House of Delegates at its last annual session voted to increase the annual dues one dollar per year, making the State Society dues without medical defense ten dollars, and with medical defense twelve dollars per year. This slight increase was made in order to give a little better working margin for the Society's activities. The annual budget of the Society is approximately as follows:

Office rent	$ 600.00	
Supplies, light, phone, stationery, etc	900.00	
Executive Secretary's traveling expenses	900.00	
Executive Secretary's salary	4,400.00	
Salary of first office clerk	1,320.00	
Salary of second office clerk	1,225.00	
Expense of Wisconsin Medical Journal	2,600.00	
Expense of annual meeting	750.00	
Railroad and pullman fare of three delegates and secretary to A. M. A. meeting	400.00	
Expenses of committees	300.00	$13,395.00
Lay Education:		
Hygeia subscriptions to state officials	500.00	
Lay issue Wisconsin Medical Journal (10,000 copies)	800.00	
Weekly press service	2,200.00	3,500.00
Sent to all members:		
Crusader	300.00	
Cancer Handbook and Periodic Health Manual	500.00	
Cost of miscellaneous service, legal advice, etc	300.00	1,100.00
GRAND TOTAL		$17,995.00

On alternate years when the legislature is in session additional expense is incurred by the Executive Secretary and Legislative Committee in following up bills offered which affect the public relations of the practice of medicine.

A membership of approximately 2,000 with the annual dues at nine dollars means annual income for the Society of $18,000.00, a figure which approaches very closely to our total annual budget and leaves but little leeway for any extraordinary or emergency expenses. Surely no one would be willing to give up the splendid work being done for the state and county societies by the Executive Secretary and his office. Our Society has never been in a position to function so completely as it is at present. In order to carry on the high standard of organization work now being done, the House of Delegates wisely voted the slight increase in annual dues.

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Rock	E. B. Brown, Beloit	G. K. Woodl, Janesville.
Rusk	L. M. Lundmark, Ladysmith	H. C. Johnson, Bruce.
Sauk	H. J. Irwin, Baraboo	Roger Cahoon, Baraboo.
Shawano	A. J. Gates, Tigerton	C. E. Stubenvoll, Shawano.
Sheboygan	A. J. Knauf, Sheboygan	Howard Curl, Sheboygan.
Trempealeau-Jackson-Buffalo	H. A. Jegl, Galesville	R. L. MacCornack, Whitehall.
Vernon	H. J. Suttle, Viroqua	Wm. H. Remer, Chaseburg.
Walworth	A. M. Leland, Whitewater	Carroll Rice, Lake Geneva.
Washington-Ozaukee	C. A. Balkwill, Grafton	A. H. Heldner, West Bend.
Waukesha	Thomas Miller, Oconomowoc	J. F. Wilkinson, Oconomowoc.
Waupaca	T. E. Loope, Iola	A. M. Christofferson, Waupaca.
Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

BROWN-KEWAUNEE

The first fall meeting of the Brown-Kewaunee County Medical Society since last June was held Thursday evening, October 19th, at the Hotel Northland. Dr. R. M. Carter, Green Bay, presented a paper on "Back Injuries."—F. M. H.

CRAWFORD

The annual meeting of the Crawford County Medical Society was held at the Court House, Wednesday afternoon, September 29th. After an interesting discussion, new officers were elected which resulted in the following: President, Dr. J. J. Kane, Prairie du Chien; Vice President, Dr. F. J. Antoine, Prairie du Chien; Delegate Dr. A. J. McDowell, Soldiers Grove; Alternate, Dr. T. E. Farrell, Seneca; Secretary and Treasurer, Dr. C. A. Armstrong, Prairie du Chien.—C. A. A.

JEFFERSON

The regular monthly meeting of the Jefferson County Medical Society was held on Thursday, October 7th, at Fort Atkinson. The meeting opened with a six o'clock dinner at the Black Hawk Hotel after which the members adjourned to the Fort Atkinson Library where Dr. Richard L. Bower, Madison, spoke on "Some Newer Phases of Bronchoscopy." Dr. Edwin R. Schmidt, of the Wisconsin General Hospital, Madison presented a paper on "The Differential Diagnosis of Gall Bladder Disease."—A. C. N.

LA FAYETTE

The LaFayette County Medical Society met at Shullsburg, Tuesday, October 5th. The meeting was called to order at two o'clock by President Peck and the scientific program consisted of the following papers and discussions: "Pernicious Anemia," by W. B. Williams; Discussion by Drs. Hoesley, Leitzel, Moe and Peck; "Goiter in School Children and Its Prevention," by Dr. H. B. Moe; Discussion by Drs. Gratiot, Ennis, Leitzel and Williams; "The Country Doctor," by Dr. P. W. Leitzel; Report on a case of Diabetes Mellitus;" Discussion by Dr. Peck; "Enuresis of Children," by Dr. M. P. Gratiot; Discussion by Drs. Kinney, Williams, Hubenthal and Peck.—S. A. J. E.

MARATHON

The Marshfield Clinic furnished the program for the meeting of the Marathon County Medical Society held at Hotel Wausau on the afternoon and evening of October 19th. Dr. Karl W. Doege, presented a paper on "Surgery of the Spleen;" "Diagnosis of Brain Tumor with Report of a Case" was the subject of the talk by Dr. V. A. Mason; and Dr. W. G. Sexton spoke on "Problems in the Treatment of Ureteral Calculi."

—J. M. F.

MILWAUKEE

The first meeting of the Medical Society of Milwaukee County was held at Muirdale Sanatorium on Friday, October 15th. The program was in the nature of "A Tuberculosis Field Day" and follows: Discussion of Indications and Contraindications for the Use of Artificial Pneumothorax as an Adjunct in the Treatment of Pulmonary Tuberculosis. Demonstration of Methods Employed in Its Introduction. Exhibition of Patients Previously Treated with Artificial Pneumothorax, by Dr. G. L. Bellis, Superintendent Muirdale Sanatorium; Visits in Groups to Various Departments of the Sanatorium. Demonstration of Methods of Giving Sunshine Treatment in the All-Year Open Pavilion. Demonstration in Laboratory of Methods Used in Determining Sedimentation Rate of Blood Corpuscles and Discussion of its Significance in Pulmonary Tuberculosis by Members of the Staff; Discussion of the Rationale of Operations Employed as Adjuncts in the Treatment of Pulmonary Tuberculosis. Demonstration of Methods Employed by Dr. J. L. Yates; Discussion of the Effects of Operations upon the Subsequent Course of the Disease. Exhibition of Patients Previously Subjected to Operation by Dr. Karl Kassowitz, Clinical Director at Muirdale; Histogenesis of the Tubercle; Its Involution in Insusceptible and Evolution in Susceptible Patients. The Nature of the Blood Picture and Its Anatomic Basis together with a Discussion of the Significance of these Responses in Diagnosis and Treatment by Dr. E. M. Medlar, Associate Professor of Pathology, University of Wisconsin.

The members of the society were guests of the management of the Sanatorium at a dinner concluding the meeting.—E. L. T.

OUTAGAMIE

The September meeting of the Outagamie County Medical Society was held at Riverview Sanatorium on September 28th at 4:30 p. m. Preceding the evening meeting the physicians played baseball and followed by a most delicious dinner at the Sanatorium. Dr. C. D. Boyd, Superintendent of Riverview, outlined the purpose of the Chest Clinic and the Sanatorium. Dr. A. A. Pleyte, Milwaukee, spoke on "Periodic Health Examinations." Both talks were well received by the doctors in attendance, numbering about twenty-five.—E. L. B.

PIERCE-ST. CROIX

At a meeting held in River Falls on October 12th, St. Croix and Pierce County Medical Societies united and chose the name of Pierce-St. Croix County Medical Society. An interesting and instructive paper was read by Dr. G. R. Matchen of Minneapolis on "Hypertrophic Pyloric Stenosis." Mr. J. G. Crownhart, Secretary of the State Society spoke on the activities of the State organization. A banquet was served in the Legion Hall by the Women's Auxiliary.

The following officers were elected for the ensuing year: President, Dr. Rolla Cairns, River Falls; Vice-President, Dr. O. H. Epley, New Richmond; Secretary-Treasurer, Dr. J. W. Prentice, Deer Park.—O. H. E.

ROCK

On Tuesday evening, September 28th, the members of the Rock County Medical Society met at Milton, about

forty physicians being present. Following supper the business meeting was called to order at the Burdick factory after which Dr. G. J. Warnshuis, medical director of the Burdick Corporation, spoke to the members. Dr. G. E. Crosley presented a report of the annual meeting of the Electro-Therapeutic Association held at Atlantic City. Dr. John E. Rueth, Milwaukee, also gave a paper which was discussed by Dr. Warnshuis. The meeting closed with a tour of the factory under the guidance of Mr. F. A. Anderson.—G. K. W.

TREMPEALEAU-JACKSON-BUFFALO

The October meeting of the Trempealeau-Jackson-Buffalo County Medical Society was held at Arcadia, Thursday, October 7th. Dr. C. F. Peterson, delegate to the state meeting, gave a comprehensive report of the House of Delegates and the meeting in general. Dr. E. A. MacCornack gave an interesting talk on his experiences in Peru, South America, where he has charge of the British American Hospital. The doctor was generous in his praise of the South American physicians and surgeons.—R. L. MacC.

WAUKESHA

A special meeting in honor of Dr. Arthur W. Rogers, President-Elect of the State Society, was given by the Waukesha County Medical Society on Wednesday afternoon and evening, October 6th, at Draper Hall, Oconomowoc. The meeting was opened with a reception at 3:30 in the afternoon and continued with the following program: Business meeting at 4:00, followed by bridge and musical entertainment for the ladies and guests. Mrs. Walter Caldwell of Waukesha gave several vocal selections at the dinner which was followed by dancing. Prominent laymen were present at this meeting from all parts of the country.—J. F. W.

MARQUETTE ALUMNI

Members of the Marquette University School of Medicine Alumni Association held their second annual clinic at Milwaukee on Friday, November 5th, and Saturday, November 6th. Dr. G. V. I. Brown, '95, was presiding officer at the clinics, programs for which follow:

8:30—Friday morning. The facts upon which specific treatment of tuberculosis is based. Results of specific treatment of tuberculosis in cases observed for at least ten years, Prof. Ernest Loewenstein, Professor Extraordinary of Tuberculosis, University of Vienna.

9:15—Pathogenesis of human pulmonary tuberculosis, E. L. Miloslavich, Professor of Pathology, Marquette University.

10:10—Surgical diathermy of malignant tumors in accessible cavities of the body, Gustav Kolischer, Senior Genito-Urinary Surgeon, Michael Reese Hospital.

11:00—The prevention of direct obstetric mortality, fifteen minutes to each of the following subjects: Prevention of puerperal infection; prevention of eclampsia; prevention of so-called obstetric shock, J. B. DeLee, Professor of Obstetrics, Northwestern University.

1:00—Friday afternoon. Roentgenology, and osteogenic sarcoma, B. H. Nichols, Director of Roentgenology, Cleveland Clinic.

1:45—The care and feeding of premature infants, Clifford Grulee, Professor of Pediatrics, Rush Medical College.

2:30—Gall Bladder Diagnosis, G. H. Copher, Assistant Professor of Surgery, Washington University.

3:15—Some border line problems in urology, H. L. Kretschmer, Professor of Genito-Urinary Surgery, Rush Medical College.

4:00—Cancer of the large bowel, C. H. Mayo, Mayo Clinic.

6:30—Friday evening. Dinner, Elizabethan room, Milwaukee Athletic Club, presiding alumnus, Dr. Dexter H. Witte, '16. Post-graduate medical educational methods in the various centers of the world, Louis B. Wilson, Director of the Mayo Foundation for Medical Research. The future Marquette Medical School, Rev. Albert C. Fox, S.J., President. Different alumni were called upon for impromptu remarks.

Saturday morning. Operative clinics conducted at various Milwaukee hospitals.

Officers in charge of this meeting were: Board of Directors: Drs. J. P. McMahon, '03, president; A. L. Curtin, '12, vice-president; W. M. Kearns, '20, treasurer; Mr. Walter J. Abel, '16, secretary; Drs. O. A. Fiedler, '02, G. T. Hegner, '09, Mrs. Harry S. Johnston, '95, and Dr. E. G. Welke, '19. Clinic Committee: Drs. Edward S. Blaine, '11, Chicago; Harry J. Heeb, '04; M. N. Federspiel, '00; H. W. Morgenroth, '97, Oshkosh; Irwin P. Schulz, '24, Mayo Clinic; Andrew Sivertsen, '16, Minneapolis.

MILWAUKEE ACADEMY OF MEDICINE

Members of the Milwaukee Academy of Medicine were addresed by Dr. John McEachern on "Functional Liver Tests" and by Dr. William Thalhimer on "Medical Work seen Abroad" at the meeting on October 12th.

On October 26th a paper on "Medicolegal Problems" was presented by Mr. Arthur B. Doe which was followed by discussion opened by Mr. J. G. Crownhart, secretary of the State Medical Society. Dr. W. J. Carson spoke on "Gangrene of Urinary Bladder, with Report of Five Cases."

Gifts of books have been sent to the library by the American Medical Association, W. E. Grove, G. J. Kaumheimer, F. C. Christensen of Racine, Dirk Bruins, I. Josefsberg, Iwan Ostromiolensky, A. B. Schwartz, O. P. Schoofs, J. G. Taylor, F. E. Walbridge and the Wisconsin Medical Journal.—D. E. W. W.

MILWAUKEE OTO-OPHTHALMIC

The regular monthly meeting of the Milwaukee Oto-Ophthalmic Society was held Tuesday evening, October 19th, at the University Club. Dr. L. M. Willard, Wausau, spoke on "Technique and Interpretation of Stereoradiography of Teeth and Sinuses" following the dinner. This was the first meeting of the society following the summer recess and was well attended.—E. R. R.

SECOND COUNCILOR DISTRICT

The annual meeting of the Second Councilor District Medical Society was held at the Racine County Club

on Thursday, October 28th. The morning session began promptly at ten o'clock and the afternoon session at two. Dr. F. C. Christensen, Racine, who recently returned from Europe, delivered an address on "Carcinoma of the Breast;" Dr. Thomas Dobbins, Kenosha, gave a talk on "Industrial Surgery;" Dr. Otto Foerster, Milwaukee, on "Epidermophyton (Ringworm) Infection of the Skin—Its Diagnosis and Treatment;" and Mr. J. G. Crownhart, secretary of the State Society, spoke on "A New Phase of Organization Activity."

The members were guests of Mr. William Horlick, Sr., at dinner and also enjoyed a tour through the Horlick's Malted Milk Plant.—S. J.

TENTH COUNCILOR DISTRICT

The meeting of the Tenth District Medical Society at Eau Claire on October 5th consisted of two sessions, forenoon and afternoon, the former being held at the Sacred Heart Hospital and the latter in the Elks' Club. The forenoon session follows: Surgical Clinic (non-operative), Dr. William J. Mayo, Rochester, Minn.; Medical Clinic, Dr. S. Marx White, Minneapolis, Minn.; Gynecological Clinic, Dr. Wm. H. Condit, Minneapolis, Minn. The afternoon program: Pernicious and Aplastic Anemias, Dr. Arthur G. Margot, pathologist to Sacred Heart and Luther hospitals, Eau Claire; Discussion, Dr. Wm. J. Mayo and Dr. S. Marx White; Cancer Problems, Dr. Wm. J. Mayo; Discussion, Dr. C. Midelfart and Dr. H. F. Derge, Eau Claire; Essential Hypertension, Dr. S. Marx White; Discussion, Dr. Wm. H. Condit and Dr. Joseph F. Smith, Wausau; Some Problems in Prophylaxis in Modern Obstetrics, Dr. Wm. H. Condit; Discussion, Dr. E. P. Hayes and Dr. H. A. Vedder, Eau Claire.

The meeting concluded with a banquet in the Eau Claire Hotel at 6:30 o'clock. Special entertainment was provided following the banquet.

ELEVENTH COUNCILOR DISTRICT

The success of the first annual meeting of the Eleventh Councilor District Medical Society will warrant another meeting in 1927 and for years to follow, if plans of the Douglas County Medical Society, sponsors of the meeting, materialize.

Dr. Joseph F. Smith, President of the State Society, emphasized the need of regulation of the practitioners in the state and stressed the value and importance of periodic health examinations. Dr. Alton Ochsner, assistant professor of surgery, University of Wisconsin, gave a demonstration at St. Mary's Hospital of the "Use of Iodized Oil in Diagnosis and Treatment of Pulmonary Diseases." Dr. R. C. Blankinship, assistant professor of Clinical Medicine, University of Wisconsin, spoke on "Gastro Intestine Diseases." Dr. Porter P. Vincent, Mayo clinic, Rochester, presented a paper on "Diagnosis of the Esophageal Diseases," and Dr. H. M. Stang, Eau Claire, spoke on "Value of Cystoscopy in General Practice." Dr. J. M. Dodd, Ashland, district councilor, and Mr. J. G. Crownhart, secretary, spoke at the banquet which followed a brief tour of the city of Superior.

There was a total attendance of about fifty men at the meeting. Several members of the profession of Duluth attended the afternoon and evening sessions. The following officers were elected: President, Dr. G. J. Hathaway, Superior; Vice-President, Dr. A. P. Andrus, Ashland; Secretary, Dr. F. G. Johnson, Iron River. These officers were empowered to act as a committee to arrange for a meeting the following year.—G. J. H.

NEWS ITEMS AND PERSONALS

As the first step toward community health progress to remedy conditions revealed in last year's Better Cities contest, Dr. W. D. Stovall, director of the State Laboratory of Hygiene, Madison, urged a system of local pre-school clinics in Wisconsin cities in a talk before the public health section of the State Conference of Social Work held at Milwaukee on October 3rd, 4th, and 5th.

All the fifteen cities whose community social assets were assayed in the contest were lacking in adequate health programs, Dr. Stovall declared, and the weakest point found was lack of medical examination of pre-school children, and of immunization of such children against contagious diseases such as diphtheria, typhoid fever, smallpox, and scarlet fever.

Dr. V. B. Hyslop, Madison, has announced the opening of his office in the Gay building, 16 North Carroll Street. Dr. Hyslop specializes in diseases of the eye, ear, nose, throat and maxillary-facial deformities. He is a graduate of the Washington School of Medicine at St. Louis and served his internship at Madison. At present he is a member of the Wisconsin General Hospital staff of plastic surgery.

Among Wisconsin physicians who attended the meeting of the Fellows of the American College of Surgeons at Montreal, Canada, from October 25th to 29th, were Drs. Joseph F. Smith, Wausau; Karl W. Doege and V. A. Mason of Marshfield, and Curtis A. Evans of Milwaukee.

Dr. Chester C. Schneider and Dr. Francis D. Murphy of Milwaukee spoke before the Seventh Annual Convention of the Wisconsin Chiropodist Society on October 3rd and 4th. "Demonstrations of Adhesive Strapping for Various Orthopedic Conditions" was the subject presented by Dr. Schneider, while Dr. Murphy gave a paper on "Vascular Diseases of the Leg and Foot."

Dr. Henry H. Hall, Webster, left recently to pursue a post-graduate course at the University of Pennsylvania. After completing this course the doctor is contemplating going abroad for a year to continue his study.

Dr. Robert A. Mullen, La Crosse, has become associated with Dr. J. F. Bennett of Burlington. Dr. Mullen was graduated from the Marquette University School of Medicine in 1925 and since that time has

been with the St. Francis Hospital of La Crosse. He will fill the place of Dr. R. H. Miller, who left several weeks ago to resume his teaching in the Medical College of the University of Tennessee.

Drs. R. F. Fisher, S. E. Barton, J. N. Doyle and E. E. Flemming, four Wausau physicians, have removed their offices from their former locations to the second floor of the new Albers Building of that city.

"Sunshine" was the interesting subject of an address delivered recently by Dr. W. P. Wheeler, Oshkosh, before the Wednesday Noon Club at the Athearn Hotel. He related its health giving properties and the use to which it is being put by medical men of the world.

Dr. C. J. Combs, Oshkosh, who holds a commission of Lieutenant-Colonel in the United States Medical Reserve Corps, returned recently from Carlisle Barracks, Pa., where he attended a two weeks' training school held for the reserve officers of the United States Medical Field Service.

Dr. Combs has been placed in charge of what is known as Evacuation Hospital No. 55, to be comprised of thirty-eight officers and 281 enlisted men, which would be organized and trained in Oshkosh in the event of a call to service.

Several other Oshkosh physicians are members of this staff. Dr. Combs is the unit commander and as such was called to the training school to receive the necessary instructions for supervising this reserve organization.

The city of Bloomer has a new acquisition to its staff of physicians in the person of Dr. W. H. Fortner, formerly of Princeton. Dr. Fortner is a graduate of the Indiana University School of Medicine and served overseas during the World War.

The Beloit Physicians and Surgeons Club held its first meeting of the fall season at a recent luncheon in the Y. M. C. A. of that city. The program included talks by various physicians concerning vacation trips and visits during the summer to medical conventions.

Dr. P. A. Fox is president of the club and Dr. L. M. Field, local health commissioner, is secretary.

Dr. and Mrs. Adolph Gundersen, La Crosse, have returned after spending four months abroad, in Norway and other European countries.

Announcement has been made of the appointment of Dr. James C. Colignon, Green Bay, as county physician for the tuberculous to succeed the late Dr. D. H. Gregory of De Pere. Dr. Colignon attended Marquette University and was graduated from the University of Minnesota in 1924. He spent his internship at the Glen Lake Tuberculosis Sanatorium in Hennepin County, Minnesota, and the University Hospital, Minneapolis.

The newly appointed county physician will spend part of three days each week at Hickory Grove and take care of all emergency calls.

Manitowoc County was represented at the meeting of the International Union for the Study of Tuberculosis at Washington, D. C., in the person of Dr. John Kelley of Cato. Dr. Kelley is the physician at the Maple Crest Sanatorium at Whitelaw and has been devoting much time and attention to the institution since its establishment.

The city of Kenosha is saved a million dollars annually through the fruits of public health work, the members of the Kenosha Optimist Club were told at a recent luncheon at the Elks' Club of that city. Dr. Windesheim, city health commissioner, was the speaker.

"The way to get at the root of disease lies in the ability to discern the symptoms before the disease gets a hold." Dr. Windsheim urged physical examinations for all people at least once a year, and particularly for children.

Dr. John R. Hughes of Dodgeville left recently for Waukesha where he will practice and make his future home. Dr. Hughes established his practice in Dodgeville about twelve years ago and was associated with Dr. D. B. Hamilton.

Dr. and Mrs. A. H. Pember, Janesville, have returned to their home after a tour abroad. Dr. Pember spent some time in eye, ear, nose and throat study in Vienna. France, Belgium, Germany, Austria and Hungary were visited. Dr. Pember visited the medical centers in each country.

Dr. R. F. Braun has opened offices at Wausau where he has rented office rooms in the new Albers Building. Dr. Braun has been practicing in Milwaukee for the past ten years.

Dr. C. W. Rodecker, 90 year old father of Dr. R. C. Rodecker of Holcombe and a pioneer physician, has gone to the Wisconsin Veterans' Home at Milwaukee to visit with his comrades of his early years.

Dr. Erich Wisiol, former Marshfield physician, has established his practice at Stevens Point. Dr. Wisiol was associated with the Marshfield Clinic for the past three years.

Dr. Paul A. Teschner, Milwaukee, who for the last year has been in private practice at Cecil, has joined the staff of the Wisconsin Anti-Tuberculosis Association as one of the five physicians who conduct the association's free chest clinics throughout the state.

Final plans for the new service memorial building at the University of Wisconsin will be completed shortly. The building, which is to be used by the medical school at the University, will be erected adjacent to the Wisconsin General Hospital at a cost of approximately $600,000.

The board of regents approved preliminary plans for the building at the session just closed. Various research departments including a hygienic laboratory,

the psychiatric institute, a clinical auditorium, and a radiology laboratory will be included in the unit.

Dr. J. O. Muehlhauser, who has been connected with St. Mary's Hospital of Green Bay, as pathologist for the past two years, has opened an office in De Pere. Dr. Muehlhauser came to Green Bay from Wuerzburg, Bavaria.

Dr. and Mrs. Francis Harbitz, of Oslo, Norway, were guests of Dr. J. H. Lee, Madison, recently. Dr. Harbitz is professor of medicine at the University of Norway at Oslo. He was a guest of the medical staff of the Wisconsin General Hospital at luncheon held at the hospital.

Dr. J. D. Cutter, Tomahawk, has retired from active practice and is now at 2200 Lewis Ave., Altadena, Calif.

Dr. J. A. Palmer, Arcadia, has received notice that he has been promoted to the grade of Lieutenant-Colonel, Medical Corps, U. S. Army Reserve. His commission is dated August 6th and was issued while he was on active duty at Fort Brady, Sault Ste. Marie, Michigan, the past summer.

Drs. E. L. Bolton and Edward F. Mielke, Appleton, have moved their offices from the third floor of the Insurance Building to the second floor, directly opposite the Chamber of Commerce office.

On November 8th, the opening day of Milk Week, a program devoted entirely to the subject of milk as a health food, was broadcast from St. Norbert's College radio station at Green Bay. Dr. John R. Minahan spoke from the point of view of the physician and surgeon and Nelly Kedzie Jones of the Wisconsin College of Agriculture, spoke on milk as a food.

The will of the late Dr. John G. Meachem, Racine, bequeaths an annual income from a sum of $170,000 to St. Luke's Hospital of that city. As a condition to receiving this income from the trust funds, the hospital must maintain and operate a hospital or other charitable institution, in its corporate capacity, in the city of Racine, having available not less than fifty beds.

Dr. Wilson Cunningham, Platteville, met with an accident recently while alighting from his automobile and was thrown to the ground, fracturing his right arm. This is the second time the doctor has had a broken arm.

Dr. O. B. Bock, was elected chairman of the Sheboygan County Chapter, American Red Cross, at the annual meeting held in the American Legion rooms, Tuesday evening, October 19th.

MARRIAGES

Dr. Richard E. Davies, Waukesha, to Miss Eleanor Evans, also of Waukesha, on Wednesday, October 6th.

Dr. Joseph L. Benton, Appleton, to Miss Doris May Buchanan, of New Auburn, at New Auburn on Saturday, September 27th.

Mr. Jesse George Crownhart, Secretary of the State Medical Society, to Miss Hildegarde Lucretia Wooll at Janesville on October 30, 1926. They will reside at 446 Woodstock Place, Milwaukee.

DEATHS

Dr. Clarence Winfred Geyer, Milwaukee, died at the Deaconess Hospital on October 10th, following an illness of two weeks. Dr. Geyer was born at Aurora, Illinois, September 17, 1878 and received his medical education at Northwestern and Columbia Universities. During the World War he was a captain, serving in Base Hospital No. 86, where he had charge of the radiological section.

Dr. Geyer established his practice in Milwaukee in 1919, specializing in roentgenology. He taught this subject at Marquette University and was one of the initiators of the radiological section of the State Medical Society. At the time of his death he was one of three members of the executive committee for the Milwaukee meeting of the Radiological Society of North America and was secretary of the Milwaukee County Radiological Society. He was a member of the Milwaukee County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife, a son, John, and two sisters.

Dr. Frank D. Millard, Milwaukee, died on October 2nd of a complication of heart and kidney disease. Dr. Millard was born at Welland, Ontario, on December 1, 1862 and was a graduate of the Milwaukee Medical College in 1897. He came to Milwaukee forty years ago and has had an office for the last twenty-seven years at 779 Third Street.

Dr. Millard was a member of the Milwaukee County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. Surviving him are his wife, and five daughters.

Dr. John G. Meachem, Racine, passed away at his residence on September 26th following an illness of approximately a year. Dr. Meachem was born in Racine, August 9, 1873, and was the only son of Dr. and Mrs. John G. Meachem II. He was a grandson of Dr. John G. Meachem I, who came to Racine in 1862 and engaged in the practice of medicine.

After attending the public schools and Racine College, Dr. Meachem entered Rush Medical College, Chicago, from which he graduated in 1897. He was active in the work of enlarging the St. Luke's Hospital, Racine, of which he was attending physician, and the success and growth of that institution is, in a large measure, due to his efforts.

Dr. Meachem was a member of the alumni association of Rush Medical College, the Racine County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his parents.

Dr. William E. Fox, Milwaukee, died at the Milwaukee General and Maternity Hospital on October 13th. Heart disease was the cause of death. Dr. Fox was born in the year 1880 and was graduated from the Wisconsin College of Physicians and Surgeons, Milwaukee, in 1905. He is survived by his wife, three daughters and a son.

Dr. G. T. McDougall, Fond du Lac, died on October 18th. Dr. McDougall was born December 1871 at Mitchell, Sheboygan County, and was graduated from the Milwaukee Medical College in 1900. He has been a resident and practicing physician of the city of Fond du Lac for the past twenty-five years.

Dr. McDougall was a member of the Fond du Lac County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife and one son, Curtis.

CORRESPONDENCE

Oct. 10, 1926.

Mr. J. G. Crownhart, Secy.,
State Medical Society of Wisconsin,
Milwaukee, Wisconsin.
Dear Mr. Crownhart:

I am submitting the following contribution for publication in the Journal:

BREAST CANCER AND X-RAY POSTOPERATIVE

We lost much through failure to follow up at the state medical meeting of 1925, one of our guests, a radiologist from Cleveland, Ohio, who reported observations made at Cleveland in x-ray treatment following a radical operation for breast cancer.

He made the statement that those treated by intensive application made the poorest showing, while those treated with mild and repeated applications showed up the best, but only a trifle better than those not treated by x-ray at all. He reported also the results of observations made in several European clinics where it was revealed that those cases not treated with x-ray made by far the best showing, mild applications next, and intensive applications the worst.

An unbiased investigation at the various efficient surgical centers in Wisconsin to establish the relative value of the three procedures would be of immense value as a life-saver. The determination as to the value of sunlight exposure might be included.

It would appear to me that the Wisconsin General Hospital at Madison would be one good center at which to make such an effort.

With kind regards,

Alfred Belitz, M.D.

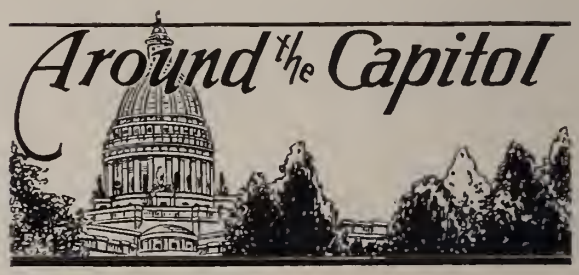
SOCIETY RECORDS

NEW MEMBERS

Miner, H. B., 929 Maryland Ave., Milwaukee.
Stokes, H. B., 447 6th St., Milwaukee.
Toepfer, R. A., West Allis.
Wilets, J. B., 246 12th St., Milwaukee.
Zimmermann, W. C., Reedsburg.
Hebenstreit, A. J., Juneau.
Meinert, A. E., Galesville.
Austin, W. T., Fall Creek.
Hunter, H. R., 333 No. Randall Ave., Madison.

CHANGES IN ADDRESS

Forbush, S. W., Orfordville, to Beloit.
Wisiol, Erich, Marshfield, to Stevens Point.
Cutter, J. D., Tomahawk, to 2200 Lewis Ave., Altadena, Calif.
Braun, R. F., Milwaukee, to Albers Bldg., Wausau.



Preliminary plans for the Service Memorial institute building at the University of Wisconsin, which will be the first unit toward the housing of a full-term medical course have been approved by the university regents. The new building is expected to cost about $600,000 and the structure, like the Wisconsin General Hospital, will be paid out of excess soldier bonus funds.

Arthur Peabody, state architect, is developing the plans for the new structure and expects to have them in readiness by the first of the year. The building will house part of the medical work at the university and various state clinics.

The new structure will be near the new General Hospital at the corner of Linden Drive, and is the first of a group of buildings which will come to surround the hospital as the Badger medical group.

* * *

Druggists who sell intoxicating liquors on forged prescriptions are violating the prohibition laws although they may be ignorant of the forgeries. Assistant Attorney General J. E. Messerschmidt decided in answer to a query by Louis O. Gunderson, prohibition commissioner of Wisconsin.

The words "knowingly," "willfully," and similar terms, Mr. Messerschmidt pointed out, are omitted from the prohibition statute, and in the case of the pharmacist selling liquor on a forged prescription, the offense consists in the sale.

"The statute imposes a duty upon the pharmacist, and when he enters into that business the law casts upon him the duty to inform himself as to whether the conditions prescribed in the statute are met," is the ruling.

"I have been unable," the assistant attorney general said, "to find any decision direct in point involving the sale of intoxicating liquors by pharmacists on a forged prescription, but the principle announced in the Hartfield case and since adhered to by our court in Welch vs. State, if applied here, will make the pharmacist

liable under the facts stated by you. Any other construction would make it possible to violate this law with impunity and it would be well nigh impossible to enforce its provisions."

* * *

A guest accepting an automobile ride cannot collect damages for injuries resulting from lack of experience on the part of the driver, if such lack of experience was known to the guest, the state Supreme Court held.

Helen Cleary of Marinette county, accepted an automobile ride from Mrs. Albert Eckart. During the drive a tire blew out and Mrs. Eckart set the brakes. The car skidded and Miss Cleary was thrown out and injured. She brought suit, claiming Mrs. Eckart was negligent in suddenly setting the brakes. The lower court awarded her $3,000 damages. The Supreme Court reversed the verdict.

Justice Owen, who wrote the Supreme Court opinion, held that Miss Cleary knew of Mrs. Eckart's limitations as an automobile driver when she accepted the ride and that, with her limited experience, Mrs. Eckart acted in accordance with her best judgment.

"The plaintiff knew of defendant's limited experience," declares the opinion, "and she knew that when she accepted the hospitality of the defendant she was placing herself in the hands of a driver with exceedingly limited experience in the management and control of automobiles. The case may well be disposed of on the ground that plaintiff accepted such hospitality as the host had to offer, and that consisted of the car in the condition in which it was, and the driver with such limited skill as she had been able to acquire in driving a car but 1,200 miles, of which plaintiff had knowledge.

* * *

That the widow of a deceased employe who has contracted smallpox in a hospital due to his weakened condition as a result of an accident, can collect death benefits under the workmen's compensation law, was the decision of the Supreme Court in the case of Mrs. Carrie Varney of Stevens Point. Her husband suffered a broken leg and then contracted smallpox at the hospital from which he died. Physicians testified that his weakened condition contributed to his death from smallpox and the court held that death was probably due to the man's weakened condition and awarded death benefits.

* * *

A. Pearce Tomkins, Ashland, connected with the Tax Commission for ten years, and I. M. Stauffacher, Monroe, connected with the income tax work of the state for twelve years, have been appointed as state tax commissioners. Mr. Tomkins succeeds Carroll D. Atwood, Milwaukee, who died early in July. Mr. Stauffacher succeeds Charles D. Rosa, who resigned to become a candidate for United States senator.

* * *

Statistics from the state railroad commission show a steady but very gradual increase in auto bus service throughout the state. According to latest reports on file with the commission there are about 500 busses operated by about 75 different operators or companies. Approximately one-third of all state passenger bus lines are operated by street railway companies, the remainder being controlled by independent operators.

In general, bus service appears to be quite stable although it is not long ago that transfers, consolidations, and changes were frequent. In spite of the increase in auto bus lines, however, it is the opinion of some members of the commission that the auto service is still not a satisfactory arrangement.

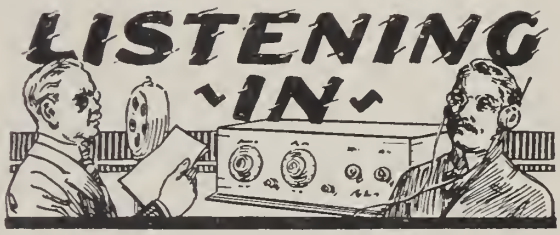
* * *

A total of $524,627 is due the state from the counties for the maintenance of patients in state institutions for the fiscal year ending June 30, 1926, according to an audit made public by the state board of control. Statutory provisions limit the rates that the counties shall pay per week, the balance of the maintenance to be borne by the state.

The counties are charged $170,433 for maintenance of patients in the three state hospitals for the insane, where the rate per week, chargeable to the county, is $2.40. The state rate is $4.80 of which the state pays one half and the county one half. This total amount is slightly higher than last year's figure of $163,441, the increase being due to normal increase in population.

The counties' share of maintenance of inmates of the two state colonies and training schools, where the rate is also $2.40 per week, is $203,296. Last year this figure was $243,473.

Counties are charged $55,677 for maintenance of patients in the state sanatorium and the Tomahawk rehabilitation camp, where the rate to the counties is $7.50 per week. This, compared with $62,955, shows a slight increase due to normal increase in population.



IMPORTANT QUESTIONS

Every mail brings letters asking for information on important questions in the field of medical practice. As result of recent letters the Society is obtaining official rulings through counsel on these questions:

1. The tax assessor refused to allow depreciation on the snowmobile. Should it not be allowed?

2. May the expense of malpractice insurance be deducted on the state and federal income tax reports?

3. Has a municipal hospital the right to provide what physicians may practice in it?

NOT BY CORRESPONDENCE

A member advises the secretary that a friend is anxious to become a nurse but because of temporary ill health is unable to enter a training school at present. He asks if there is not some correspondence school through which proper preliminary training may be obtained. The member was advised that while there were such courses none were recognized and the expense

appeared to be out of proportion to the benefits to be obtained.

COMMITTEE APPOINTED

At the last session of the House of Delegates a resolution was adopted calling for the appointment of a committee to investigate the subject of basic requirements for hospitals and suggesting that some system of licensure might be advisable. Pursuant to direction of the House, President Smith has appointed as members of this committee: Dr. Robert W. Blumenthal, Milwaukee, chairman; Dr. C. A. Harper, Madison, and Dr. F. Gregory Connell, Oshkosh. This committee will make a report to the January meeting of the Council.

A SUGGESTION

While it has not been the policy of the State Fair Advisory Board to accept exhibits of a nostrum type, an occasional exhibit of this type has crept in in the past years. The secretary of the State Society has suggested to the State Fair Advisory Board that in the future all exhibits relating to health and disease be approved by the State Health Officer prior to acceptance. The board will pass upon this suggestion at its next meeting.

FROM A READER

"Book Notices" in the Journal of the American Medical Association, September 25, 1926, answers a question that many medical readers of the novel, "Sorrell and San," must have been curious about. It seemed to us that the author, Warwick Deeming, must have had a medical education to be so intelligent in his handling of the young doctor and in his description of two grave disease conditions. He is; but he practiced only during the war. Here is a novel that is distinctly worth the reading. Physicians will get a little additional pleasure out of it.

Physicians interested in stories of travel and exploration will find "The Surgeon's Log," by J. Johnston Abraham, none the less interesting for having been written by a physician. One incidentally who shipped on a merchantman for a rest cure he could not afford to take in a sanatorium or nursing home. The book is English and not new. But it is none the worse for that.

TWENTY YEARS AGO

Dr. M. D. Bird, Marinette, found that a typhoid epidemic at Niagara was due to filthy well water. A small epidemic was reported in Kenosha.

Dr. E. B. Bradford, formerly of Milwaukee, purchased the Hudson Sanitarium from Dr. Humbird of St. Paul.

Dr. Charlie Sheldon, secretary of the State Society, stated that the membership was 1,500 and urged the secretaries "persistently to go after the indifferent and the careless. Do not be satisfied with sending one invitation, but send a dozen if necessary."

Dr. E. L. Boothby, councilor of the Tenth District, at a meeting of the Dunn County Medical Society, urged that all narcotics be dispensed by the physician himself.

A CORRECTION

In our last column we stated that Dr. M. P. Andrews, of Manitowoc, and Dr. Carl S. Harper, Madison, tied for the President's cup at the annual meeting golf tournament. This was in error. The correct account follows:

Dr. M. P. Andrews, Manitowoc, finished five strokes ahead of his nearest competitor to shoot low gross total and win the President's cup in the annual state tournament of the State Medical Society on the Maple Bluff course Tuesday afternoon. Dr. Andrews shot an 86 Dr. E. W. Miller captured second prize with 91, and three tied for third with 92 each. They were Dr. F. A. Thayer, Dr. G. T. Hegner, and Dr. Elliott. Dr. Carl S. Harper of Madison tied for low net score and first place in the Secretary's meet, but lost the cup on the flip of a coin to Dr. J. H. Carroll of Milwaukee. Dr. Harper's gross was 94, his handicap 19, and his net 75. Dr. Carroll's counts were 97-22-75. Dr. C. M. Schuldt of Platteville placed third with 93-16-77.

The Wisconsin Blue Sky Law and Investment Quacks: How a State Licensing Board Uses Its Power to Prevent Fraud

BY MISS OLGA M. STEIG
Examiner, Securities Division
Wisconsin Railroad Commission

Today, as perhaps never before, the public turns to the stock market quotations in daily newspapers for news of the rise or decline of its market favorites. Today, as perhaps never before, the financial page has caught the fancy of thousands of small investors to whom in recent months such names as Chrysler, Nash, General Motors have been transformed from symbols of popular automobiles to symbols of speculation or investment, according to the individual viewpoint. And perhaps as never before Wall Street welcomes this new and expanding interest, for the wide distribution of shares has been found to have distinct advantages.

But new problems arose when "Main Street crossed Wall Street." When the bucket shop crashes came there were many who asked, "What about Blue Sky Laws? They were supposed to prevent fraud." And now when Professor W. Z. Ripley raises the question of the fairness of non-voting stock and challenges the Federal Trade Commission to require the disclosure of corporate financial data, again there are those who ask, "What about state regulation and the Blue Sky Laws?"

FRAUD vs. LOSS

"There is a great distinction between the prevention of fraud and the prevention of loss. The Wisconsin law provides a three-fold protection against fraud."

So declares the author in this first of a series of articles dealing with securities and their sale in Wisconsin. These articles, written especially for this Journal, will be of interest and value to every physician.—Editor's Note.

Professor Ripley says little can be accomplished by state regulation and I dare say financial and business interests generally will agree with him.

Perhaps they are right, but, whether right or wrong, they have once more raised the question of the regulation of securities,—of state or federal Blue Sky Laws, and the public has, naturally enough, once more become interested. The time is ripe, I think, for a discussion of the Wisconsin Blue Sky Law, and while the emphasis in this and subsequent discussions will be on the constructive good the operation of the law has accomplished, it is only proper too, to admit its weaknesses.

Admittedly, it was not the conflict of Wall Street and Main Street that made Blue Sky Law legislation necessary. Rather it was the swarm of unscrupulous promoters and high pressure fly-by-nights who foisted gold bricks and hapless oil wells and hopeless mining ventures on a gullible public, that created the demand for protection of investors. In the wake of such speculative disasters came several attempts at legislation, the last of which,—passed in 1919—has been more effective than any of the earlier attempts.

The essence of the law is the prevention of fraud. The Supreme Court, in passing on its constitutionality, refers specifically to that as its purpose. The public mind does not fully appreciate, I am afraid, that there is a great distinction between the prevention of fraud and the prevention of loss; neither legislative enactment, nor the wisdom of all mankind can prevent the latter.

The law provides a three-fold protection against fraud: First, by requiring the dealer to be licensed, thereby giving the commission a measure of control over his activities; second, by requiring the agent to be licensed; and third, save for certain exemptions, by requiring a permit for the security itself. These, then, are the tools which the Commission must use in administering the law.

The responsibility of issuing licenses to dealers and agents is a serious one. Often it is discouraging, because of a popular misconception as to what the issuance of a license means. The public too often erroneously infers that the state has placed an official O. K. on the honesty and reliability of a dealer or agent to whom it has issued a certificate. To be sure, the Commission, before issuing a broker's license investigates the applicant's character, his reputation, his business record, his general fitness. The applicant must give references; he must tell his whole business experience. And the wise applicant knows that the Commission is pretty likely to uncover anything he may try to conceal, and that it is better for him to make a full disclosure voluntarily. than wait to be questioned. For, obviously, the Commission does not rely solely on references, which by their very nature, are almost invariably favorable. It makes its own investigation, through commercial agencies and its own private sources.

But though the Commission may extend its investigation to include the broadest phases of the dealer's or agent's conduct and fitness, it must confine itself to narrower limits in granting or refusing licenses. Unlike the medical and legal professions, technical knowledge of the subject is not a determining factor. Investors may regret that this is so, but the law establishes no standards, provides for no board of examiners similar to the bar or medical examiners, and the Commission therefore cannot refuse the dealer or agent a license merely because it believes that he has inadequate knowledge of investments.

Neither is financial standing a factor to be considered except perhaps under special conditions. I suppose most people start out to earn a living without capital. It is not a requisite to honesty, which, after all, is the fundamental factor in a business relationship between the investment dealer and his client.

WEEDING OUT QUACKS

Suppose a dealer has sold worthless securities, what then? Will he be denied a license? The Commission recognizes a vast difference between securities that are worthless at the time of sale and securities that later become worthless for one reason or another. If the dealer or agent has sold

(Continued on page 582.)

THE JOURNAL BOOK SHELF

Collected Papers of the Mayo Clinic, Rochester, Minn., 1925. Octavo of 1078 pages, 252 illustrations. Cloth, $13.00 net. W. B. Saunders Company, Philadelphia and London.

The Surgical Clinics of North America. Volume VI, Number II, San Francisco Number, April, 1926. February, 1926, to December, 1926, 250 pages with 73 illustrations. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

The Surgical Clinics of North America. Volume VI, Number I, Philadelphia Number, February, 1926, February, 1926, to December, 1926, 325 pages with 136 illustrations. Paper, $12.00; cloth $16.00 net. W. B. Saunders Company, Philadelphia and London.

Fractures and Dislocations. By Wilson & Cochrane. J. B. Lippincott Co., Philadelphia.

New and Nonofficial Remedies, 1926, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1926. Cloth. Price, postpaid, $1.50. Pp. 459+XLIII. Chicago: American Medical Association, 1926.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1925. Cloth. Price, postpaid, $1.00. Pp. 90. Chicago: American Medical Association, 1926.

Hay-Fever and Asthma. A practical handbook for physicians and their patients. By Ray M. Balyeat, M.D. Illustrated. The book discusses in non-technical terms the causes of hay-fever and asthma and outlines the routine management for patients suffering from such disease, with specific treatment for different types. Price, $2.00. F. A. Davis Company, Philadelphia.

Birth Control and the State. A plea and a forecast. By C. P. Blacker, M.D. E. P. Dutton & Company, 1926, New York.

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M.D., Prof. of Diseases of Children, Northwestern University Medical School, Chicago. Volume VIII containing 1102 pages with 388 illustrations and general index to Volumes I to VIII. Cloth, $10.00 per volume. W. B. Saunders Company, Philadelphia and London, 1926.

Clinical Pediatrics. By John Lovett Morse, M.D., Prof. of Pediatrics, Emeritus, Harvard Medical School. Cloth, $9.00 net. Illustrated. W. B. Saunders Company, Philadelphia and London.

Medical Clinics of North America. Volume X, No. 1. Philadelphia number, July, 1926. Octavo of 260 pages with 24 illustrations. Per clinic year, July, 1926, to May, 1927. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Surgical Clinics of North America. Volume VI, number 3. Lahey clinic number, June, 1926. Pages, 214, with 54 illustrations. Per clinic year, February, 1926, to December, 1926. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Goiter and Other Diseases of the Thyroid Gland. By Arnold C. Jackson, M.D., Jackson Clinic, Madison. Three hundred pages, one hundred and fifty-two illustrations; price, $10.00 net. Paul B. Hoeber, New York.

Cannula Implants and Review of Implantation Technics in Esthetic Surgery. By Charles Conrad Miller, M.D. Description of technic of implantation of living tissues and foreign material through a cannula. One hundred and seventy-eight pages, eleven illustrations. Price, $2.00. The Oak Press, Chicago.

Practical Materia Medica and Prescription Writing. By Oscar W. Bethea, M.D., Prof. of Clinical Therapeutics, Tulane School of Medicine. Fourth revised edition. F. A. Davis Company, Philadelphia, 1926.

The Modern Treatment of Hemorrhoids. By Joseph Franklin Montaque, M.D., University and Bellevue Hospital Medical College, New York. One hundred and sixteen illustrations. Price, $5.00. J. B. Lippincott Company. Philadelphia and London.

Surgery of Neoplastic Diseases by Electrothermic Methods. By George A. Wyeth, M.D., New York. One hundred and thirty-seven illustrations. Price, $7.50. Paul B. Hoeber, New York.

Blood Chemistry Colorimetric Methods. Second edition. For the general practitioner with clinical comments and dietary suggestions by Willard J. Stone, M.D., attending physician, Los Angeles General Hospital and Pasadena Hospital. Price, $3.25. Paul B. Hoeber, Inc., New York, 1926.

Handbook of Diseases of the Rectum. By Louis J. Hirschman, M.D., Prof. of Proctology, Detroit College of Medicine; Proctologist, Harper and Woman's Hospitals. With 252 illustrations, mostly original, and five colored plates. Fourth edition revised and rewritten. Price, $6.50. C. V. Mosby Company, St. Louis, 1926.

Chemistry of Food and Nutrition. By Henry C. Sherman, Sc.D., Mitchell Professor of Chemistry, Columbia University. Third edition, rewritten and enlarged. The MacMillan Company, 1926, New York.

BOOKS RECEIVED FOR REVIEW

Acute Epidemic Encephalitis. (Lethargic Encephalitis.) An investigation by the Association for Research in Nervous and Mental Diseases. Report of the papers and discussions at the meeting of the association; New York City, December 28th and 29th, 1920. Paul B. Hoeber, New York City.

Pathology of the Nervous System. By E. Farquhar Buzzard, M.D., physician to St. Thomas' Hospital and physician to out-patients at the National Hospital for the Paralyzed and Epileptic, and J. Godwin Greenfield, M.D., pathologist to the National Hospital for the Paralyzed and Epileptic. Paul B. Hoeber, New York City, 1925.

The Human Cerebrospinal Fluid. An investigation of the most recent advances, as reported by the Association for Research in Nervous and Mental Disease. The proceedings of the association; New York, December 29th and 30th, 1924. With 77 illustrations and 58 tables. Paul B. Hoeber, New York, 1926.

Physiotherapy. Theory and clinical application. By Harry Eaton Stewart, M.D., President-elect American Academy of Physiotherapy, director New Haven School of Physiotherapy. Paul B. Hoeber, New York.

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Medical Clinics of North America. Philadelphia number, September, 1926. Volume X, Number 11. Octavo of 217 pages with 16 illustrations. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Surgical Clinics of North America. Volume VI, Number III, Chicago clinic number, August, 1926. Pages, 324, with 101 illustrations. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Life Insurance Medicine. A study of some of its problems and their relation to clinical medicine by members of the medical department of the New England Mutual Life Insurance Company. Volume I, published by New England Mutual Life Insurance Co., Boston, 1926.

Modern Clinical Syphilology. By John H. Stokes, M.D., Prof. of Dermatology and Syphilology in the School of Medicine, University of Pennsylvania. Octavo of 1444 pages with 885 illustrations and text figures and more than 200 detailed case histories. Cloth, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1926.

The Ophthalmic Year Book. Volume XXII. Containing bibliographies, digests and indexes of the literature of ophthalmology for the year 1925. Edited by William H. Crisp. Published by the Ophthalmic Publishing Company, Chicago, September, 1926.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners. Volume III. Thirty-sixth series, 1926. J. B. Lippincott Company, Philadelphia and London.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee, Wisconsin. These new books will be loaned for an inspection period only.

Defective Memory, Absentmindedness and Their Treatment. By Arnold Lorand, M.D., Carlsbad, Czecho-Slovakia. F. A. Davis Company, Philadelphia, 1926.

A physician who reads this book with the idea of learning anything new or anything of value concerning memory defects is due for a great disappointment. There are a great many more or less isolated well-known facts mentioned and a great many more statements given as facts which, to say the least, are questionable. Very little of the late scientific work in regard to the unconscious basis for defective memory is mentioned at all. For the specialist in nervous and mental diseases this book is of no value whatever, for the general practitioner of medicine, very little value. An ordinary lay reader might find this book interesting and instructive; for the medical man this is one of the type of books, the study of which is of little benefit and which takes up just so much room on the book shelf.—B. B. R.

The Treatment of Fractures. With notes upon a few common dislocations. By Charles Locke Scudder, M.D., consulting surgeon to the Massachusetts General Hospital. Tenth edition, revised. Octavo volume of 1240 pages, with 2027 illustrations. Polished buckram, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1926.

This, the tenth edition of a very popular work on fractures, contains 65 per cent more information than the previous edition. Most of the new material is incorporated in the chapters dealing with operative treatment, peripheral nerve injuries, and the methods of traction and counter-traction popularized during the war.

There are numerous new and instructive illustrations to make the reading matter more interesting and understandable.

Scudder has always been a popular work amongst the general practitioners and I am wondering whether the new chapters dealing with the open treatment of fractures are a little too brief and limited for their use. For the bone specialist and orthopedic surgeon these chapters are undoubtedly of little benefit.

One other criticism might be made of this otherwise excellent work and that is the arrangement of the various chapters. Scudder begins the book with a description of head injuries and in the middle of the book one finds such chapters as "Bone Repair," massage, etc. For example, take a common fracture in the vicinity of the elbow joint. Simple fractures in the region of the elbow joint are dealt with in one place, compound fractures in another; complications, such as peripheral nerve injuries, in still another. The same applies to the treatment; the closed and open methods are dealt with in entirely different sections of the work. This, it seems, would make difficult reading for some who are fortunate in being busy these days.—E. H. M.

Practical Dietetics for Adults and Children in Health and Disease. By Sandford Blum, M.D., Head of Department of Pediatrics, and Director of the Research Laboratory, San Francisco Polyclinic and Post Graduate School. Second revised edition; price $4.00 net. F. A. Davis Company, Philadelphia, 1926.

The text is divided into two parts:

Part 1. Dietary for Adults in Health and Disease. Suggested diets are given, in very simple forms, for adults in health and for those with various chronic diseases. Dietaries are also given where two or more diseases coexist. The various foods are classified under two headings: One of the permitted and the other of the forbidden foodstuffs.

Part 2. Dietary for Infants and Children in Health and Disease. Detailed diets for the first and second year and for the period covering from the second to the fifteenth year are given for normal children. This is

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followed by suggested diets to be used in various diseased conditions. Again the permitted foodstuffs are listed side by side with those which should be avoided.

—M. C. P.

Physiotherapeutic Lectures. Third edition. Condensed report of lectures, clinics and discussions at Fourth Annual Physiotherapeutic Convention. H. G. Fischer & Co., Inc., 1925.

The book is a compilation of the lectures, clinic and so forth on physiotherapy held under the auspices of the H. G. Fischer Co., and is published by that company.

The lectures are for the most part given by the most enthusiastic of physiotherapists and would make very good reading for one who regarded that form of treatment the zenith in therapeutics. Most of the lectures therefore must be taken with a considerable grain of salt and some of them entirely deleted. There are some worth while lectures, particularly on heliotherapy and on physiotherapy as an adjunct to medicine and surgery.

If one is careful to cull the worthless, the worth while parts of the book can be of some value.—M. Q. H.

Diathermy with Special Reference to Pneumonia. By Harry Eaton Stewart, M.D. Second edition, revised, with 45 illustrations and 15 charts. Paul B. Hoeber, Inc., New York, 1926.

The book is essentially a treatment of diathermy technique. The first two chapters deal with the earlier work in diathermy and describe the advances in this form of therapy. The author assumes that the reader has a foundation of physics and goes into the phase of diathermy only meagrely. The main object of the book is the description of diathermy technique. It is comprehensive and clearly written and accomplishes this purpose very well. In a short chapter on surgical diathermy he approaches this subject cautiously and discusses the advantages, disadvantages and dangers fairly. The treatment of pneumonia receives particular attention. A number of case histories are given in detail that might as well be abstracted or summarized and still give the same amount of information.

It is a relief to read a book on this subject that does regard the treatment as a cure-all and is not ostensibly written in the behalf of manufacturers of physiotherapy apparatus. It was rather disappointing to find toward the end of the book a full page cut of a high frequency apparatus with the name of the manufacturer stenciled in large letters on the side of the machine.

In the concluding chapter he summarizes the effects of diathermic treatment on the various symptoms of pneumonia during the different stages of the disease.

—M. Q. H.

STATE BLUE SKY LAW

(Continued from page 577.)

worthless securities the Commission has basis for denial. But the fact securities decline in value or become worthless after the sale, through no possible fault of the dealer who sold them, is not in itself proper basis for refusal of a license. Mistaken judgment is not criminal. Few indeed would be in the investment business if all whose judgment had been unfortunate were barred. Even houses who boast of 50 years without loss to an investor have had defaults. The fact is they have the right to boast not so much of good judgment in the selection of investments as of their financial ability to shift the burden of default from the investor to themselves.

It is no easy task to weed out the quacks in the investment field. Occasionally even a bucket shop is able to hide its identity for a while. But for the most part they are discovered before they have done serious damage.

The following story is a case in point: On November 5, 1925, a young man whom I shall call Nolan, was found guilty in Judge Fritz's court of violation of the Blue Sky Law. Nolan was fined $300 and costs and given the alternative of spending nine months of the twenty-ninth year of his life in the house of correction.

The story of Nolan is an echo of the bucket shop housecleaning that took place in Chicago early in 1923. Dozens of bucket shops had been closed following investigations and raids by State's Attorney Crowe of Cook County. The Commission had their names, their histories. The Commission had tips also that the bucketeers were planning a raid on Milwaukee, and suspected what their plan would be. At that time the law gave the Commission no control over dealers selling only exempt securities. And the bucketeers, it was believed, would come in, claiming to sell only securities listed on the New York, Chicago, or Boston Stock Exchange, sell on margin, or some partial payment plan, make a good cleaning and then take the first boat for Havana.

Fortunately the legislature was in session. A bill was drafted extending the control over brokers to all dealers except those selling only government and municipal bonds. But the legislature must move deliberately; it must give all an opportunity to be heard. And before the bill was enacted into law, one or two houses had opened elaborate offices in Milwaukee.

In April, a concern which I shall call Church-Dohr & Company, made the gesture of applying for a broker's certificate. The Commission investigated. Neither a Church nor a Dohr could be found in its personnel. The name, it seemed.

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1926

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HOUSE OF DELEGATES

MONDAY EVENING SESSION
September 13, 1926

The first session of the House of Delegates was called to order at eight-thirty o'clock in the Crystal Room, Hotel Loraine, Madison, Wisconsin.

DR. W. T. LINDSAY (Madison): I move that the roll call be dispensed with.

DR. C. A. HARPER (Madison): I second the motion.

SECRETARY CROWNHART: It has been moved and seconded that the roll call be dispensed with. All in favor signify by saying "aye," opposed "no." The ayes have it.

DR. A. J. McDOWELL (Soldiers Grove): Mr. President, I wish at this time formally to present the report of the Committee on Revision of the Constitution and By-laws.

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

To the Members of the 1926 House of Delegates:

At the 1925 annual meeting of the House several questions arose dealing with changes in the constitution and by-laws of the Society. At the same time there was submitted a new model constitution for state societies which incorporated changes recommended by a special committee of the American Medical Association and approved by the House of Delegates of that Association. Your committee was authorized to study this model constitution and questions which had been raised in 1925 and to report at the 1926 meeting.

Your committee, after careful study, held a meeting in Milwaukee at which it was decided that it would be far better to submit to this House a completely revised constitution and by-laws, rather than to attempt to secure such revisions by amendment to the existing constitution. Your committee therefore submits herewith a complete constitution and by-laws for your consideration.

While there are numerous changes throughout, for the most part such changes are made to secure a better wording in the light of our present-day experience.

IMPORTANT CHANGES

Your committee has, however, recommended several important changes which are incorporated in the constitution and by-laws submitted herewith. For the information of the delegates such changes are summarized herewith with reference notes pointing out where they may be found:

1. The Council is made the Board of Trustees of the Society and is given the powers of the House of Delegates during such periods as the House is not in session (Consti. Art. VI). In general, the Council is made the supervisory and guiding body for the administration of the affairs of the Society. It is responsible to the House of Delegates for its actions and the terms of the councilors are reduced from six years to three years, four

to be elected each year, rather than two (Consti. Art. IX).

2. Two major changes are made respecting other offices of the Society.

(a) The committee recommends abolishing the present offices of First, Second and Third Vice-Presidents and substituting therefore a President-Elect (Consti. Art. IX). This corresponds more closely to the organization of the American Medical Association and permits the incoming president to have the benefit of a full year's notification that he is to be president, during which time he may prepare himself for the duties and responsibilities of the office.

(b) Instead of calling upon the president of the society to preside at both the scientific sessions and at the several meetings of the House of Delegates, we have provided for the election of a Speaker and Vice-Speaker of the House of Delegates by that body (Consti. Art. IX). The delegates may thus choose their own presiding officer, who should, naturally, be a member of the House experienced in legislative procedure and well acquainted with the aims, policies, and work of the society. The Vice-Speaker is provided as a substitute for the Speaker during his absence or by reason of unexpected vacancy in that office. The Speaker of the House is also made an ex-officio member of the Council that he may represent the House of Delegates in the transactions of that body.

3. The name "State Medical Society of Wisconsin," having been adopted upon organization and by legislative enactment in 1841. your committee recommends no change at this time.

4. The final change in the constitution provides that a proposed amendment submitted at one annual session shall lie over, without action, until the succeeding annual session (Consti. Art. XIII).

CHANGES IN THE BY-LAWS

1. The by-laws have long provided that those who read scientific papers before this society shall deposit them with the Secretary and shall not cause them to be published elsewhere until they have been published in our Journal or returned unpublished by the Editorial Board. Annually this provision has been called to the attention of those appearing upon our programs but violations continue to occur. Your committee has added a penalty clause providing that those who fail to observe this provision shall be ineligible to appear on programs of the state society for a period of five years (By-Laws, Chap. II, Sec. 3).

2. The Council is definitely charged with the duty of supervising the publications of the society including the Journal and provision is made that when important questions of editorial policy arise. the Editorial Board shall refer such questions to the Council for determination (By-Laws, Chapt. VI, Sec. 6).

3. A new committee is provided to be called the Committee on Medical Economics. Its duties are defined in Chapter VII, Section 7.

4. At the present time all committees are elected by the House of Delegates. In the proposed by-laws each committee consists of three members who will serve for three years each, one term expiring each year. To fill such vacancies the incoming president will make appointments which appointments must be submitted to the House of Delegates for its approval (By-Laws, Chapt. VII, Sec. 1).

5. Instead of the president appointing an entirely new committee each year to arrange the scientific program for the annual session, this committee is made a permanent body consisting of three members and the Secretary. One member is appointed and confirmed by the House each year (By-Laws, Chapt. VII, Sec. 1).

6. At the present time "Every reputable and legally qualified physician who does not practice, nor profess to practice sectarian medicine, and who is a bona fide resident of the same county, shall be eligible for election to membership."

Your committee adds as a cause for refusal to elect to membership, an additional qualification that the applicant be one who has conducted himself in accordance with the principles of ethics of the American Medical Association (By-Laws, Chapt. XI, Sec. 3).

CONCLUSION

Your committee has spent many hours to accomplish the work it was directed to do. Necessarily the above summarization is condensed but it mentions, we believe, every change of outstanding importance. Any delegate or officer having any questions is urged to present such questions prior to the annual meeting to the end that we may expedite consideration of this report at the time of the meeting.

Respectfully submitted,

Dr. A. J. McDowell, *Chm.*,
Dr. Rock Sleyster,
Dr. T. W. Nuzum,
Mr. J. G. Crownhart,
Secretary, Ex-Officio.

CONSTITUTION

ARTICLE I

NAME OF THE ASSOCIATION

The name and title of this organization shall be the State Medical Society of Wisconsin.

ARTICLE II

PURPOSE

The purposes of this Society shall be to federate and bring into one compact organization the entire medical profession of the state of Wisconsin, and to unite with similar societies of other states and territories of the United States to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforce-

ment of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III

COMPONENT SOCIETIES

SECTION I. Component Societies shall consist of those county medical societies which hold charters from this Society.

SEC. 2. The terms, county medical society and component county medical society, shall be deemed to include all county medical societies and academies of medicine now in affiliation with this Society, or which may hereafter be organized and chartered by the House of Delegates of this Society.

ARTICLE IV

COMPOSITION OF THE ASSOCIATION

SECTION 1. This Society shall consist of members who shall be the members of the component county medical societies who have been certified to the headquarters of this Society, and whose dues and assessments for the current year have been received by the Secretary.

SEC. 2. Those members who have been elected to honorary membership by the various component county societies, may be enrolled as honorary members of this Society upon approval of the Council. These honorary members shall enjoy all the rights of membership, and their dues to the State Society shall be remitted.

ARTICLE V

HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of the Society, and shall consist (1) of delegates elected by the component county societies, and (2) the officers of the Society enumerated in Section 1 of Article IX of this constitution.

ARTICLE VI

COUNCIL

The Council shall be the Board of Trustees of this Society. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of Delegates shall be called into session as provided in the Constitution and By-Laws. It shall consist of the Councilors. The President, the President-Elect, the Secretary, the Treasurer and the Speaker of the House of Delegates shall be ex-officio members of the Council, but without the right to vote. Nine of its members shall constitute a quorum.

ARTICLE VII

SECTIONS AND DISTRICT SOCIETIES

The House of Delegates may provide for a division of the scientific work of the Society into appropriate Sections, and for the organization of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE VIII

SESSIONS AND MEETINGS

SECTION 1. The Society shall hold an annual session during which there shall be at least two general meetings, open to all registered members, delegates and guests.

SEC. 2. The place for holding each annual session shall be fixed by the House of Delegates, or by failure to act, such authority is delegated to the Council. The time for holding each annual session shall be approved by the Council.

SEC. 3. Special meetings of either the Society or the House of Delegates may be called by a two-thirds vote of the Council or upon petition by twenty delegates.

ARTICLE IX

OFFICERS

SECTION 1. The officers of this Society shall be a President, a President-Elect, a Secretary, a Treasurer, twelve Councilors, and a Speaker and Vice-Speaker of the House of Delegates.

SEC. 2. The officers, except the Councilors, shall be elected annually. The terms of the Councilors shall be for three years; one third of the members of the Council shall be elected each year. Councilors for the seventh, eighth, ninth and tenth districts shall be elected in 1926; for the eleventh, twelfth, first and second districts in 1927; for the third, fourth, fifth and sixth districts in 1928, and thereafter four shall be elected each year in this order. The Secretary and the Treasurer shall be elected by the Council. All these officers shall serve until their successors are elected and installed.

ARTICLE X

FUNDS AND EXPENSES

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds may also be raised by voluntary contributions, from the Society's publications and in any other manner approved by the House of Delegates. The Treasurer and Secretary shall submit an annual budget to the Council. All resolutions providing for appropriations shall be referred to the Council and all appropriations approved by the Council shall be included in the annual budget.

ARTICLE XI

REFERENDUM

At any general meeting of the Society it may, by a two-thirds vote, order a general referendum upon any question pending before the House of Delegates. The House of Delegates may, by a vote of its members, submit any question to the membership of the Society for its vote. A majority vote of all the members of the Society shall determine the question.

ARTICLE XII

SEAL

The Society shall have a common seal. The power to change or renew the seal shall rest with the House of Delegates.

ARTICLE XIII

AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the members of the House present at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been published twice during the year in the bulletin or journal of this Society, or sent officially to each component society at least two months before the meeting at which final action is to be taken.

BY-LAWS

CHAPTER I

MEMBERSHIP

SECTION 1. The name of a physician on the official roster of this Society, after it has been properly reported by the secretary of his county society, shall be *prima facie* evidence of membership and of his right to register at the Annual Session.

SEC. 2. No person who is under sentence of suspension or expulsion from any component society of this Society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Society.

SEC. 3. Each member in attendance at the Annual Session shall register, when his right to membership has been verified by reference to the records of this Society. No member shall take part in any of the proceedings of the Annual Session until he has complied with the provisions of this section of the By-Laws.

CHAPTER II

GENERAL MEETINGS

SECTION 1. The General Meetings shall be open to all registered members and guests. At such time as may have been arranged, shall be delivered the annual addresses of the President and of the President-Elect.

SEC. 2. No address or paper, except those of the President, the President-Elect, and the annual orations, shall occupy more than twenty minutes in its delivery. No member, except by unanimous consent, shall speak more than once in the discussion of any paper nor longer than five minutes at any one time.

SEC. 3. All papers read before this Society shall be its property. Each paper, when it has been read, shall be deposited with the Secretary. Authors of papers read before this Society shall not cause them to be published elsewhere until after they have been published in its Journal or returned by the Editorial Board. Authors who fail to observe this section shall be ineligible to appear on programs of the State Society for a period of five years.

CHAPTER III

HOUSE OF DELEGATES

SECTION 1. The House of Delegates shall meet annually at the time and place of the Annual Session.

SEC. 2. Each component county society shall be entitled to send each year one delegate or one corresponding alternate to the House of Delegates for each fifty full-paid members or major fraction thereof in this Society provided, however, that each county society shall be entitled to at least one delegate or one corresponding alternate.

SEC. 3. A majority of the members of the House of Delegates registered shall constitute a quorum of the House of Delegates. All meetings of the House of Delegates shall be open to members of the Society.

SEC. 4. From among members of the House of Delegates the Speaker of the House of Delegates, for the purpose of expediting proceedings, shall appoint Reference Committees to which reports and resolutions shall be referred as follows:

a. On Credentials.
b. On Resolutions.
c. On Report of Officers.
d. On Reports of Standing Committees.

He shall also appoint such other committees as may be considered by him to be necessary.

SEC. 5. The House of Delegates shall elect delegates to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body.

SEC. 6. The House of Delegates shall divide the State into Councilor Districts, specifying what counties each district shall include, and, when the best interest of the Society and the profession will be promoted thereby, organize in each a district medical society, of which all members of the component county societies shall be members.

SEC. 7. The House of Delegates shall have authority to appoint committees for special purposes from among members of the Society who are not members of the House of Delegates. Such committees shall report to the House of Delegates, and may be present and participate in the debate on their reports.

SEC. 8. It shall approve all memorials and resolutions issued in the name of the Society before they shall become effective.

CHAPTER IV

ELECTION OF OFFICERS

SECTION 1. The House of Delegates at its first meeting at the Annual Session shall elect a committee on nominations consisting of one delegate from each councilor district. The committee on nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the names of one or more members for each of the offices to be filled at that Annual Session. No two candidates for President-Elect shall be from the same district, and each candidate for Councilor must be a resident of the district for which he is nominated.

SEC. 2. The report of the nominating committee and the election of officers shall be the first order of business of the House of Delegates at the third meeting of the House.

SEC. 3. All elections of officers, where more than one nomination is received, shall be by ballot and a majority of the votes cast shall be necessary to elect except for delegates and alternates to the American Medical Association. In case no nominee receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all the votes cast, when he shall be declared elected. In case no delegates or alternates for the American Medical Association receive on the first ballot a majority of the vote, the nominees shall be declared elected in the order of the highest number of votes received, until the allotted number shall have been chosen. In case of a tie vote for delegate or alternate, the tie shall be determined by lot.

SEC. 4. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

SEC. 5. No person known to have solicited votes for or sought any office within the gift of this Society shall be eligible for any office for two years.

CHAPTER V

DUTIES OF OFFICERS

SECTION 1. The President shall preside at all meetings of the Society; he shall appoint a Committee on Arrangements for the Annual Session and all committees not otherwise provided for; he shall deliver an annual address at such time as may be arranged, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and, as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

SEC. 2. The President-Elect shall act for the President in his absence or disability. If the office of President should become vacant the President-Elect shall succeed to the presidency. In case of vacancy in the office of both President and President-Elect the Council shall appoint one of its members as Acting President until the next meeting of the House of Delegates.

SEC. 3. The Treasurer shall give bond in such amount as the Council may provide. He shall demand and receive all funds due the Society, together with bequests and donations. He shall pay money out of the Treasury only on a written order of the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his doings and of the state of the funds in his hands.

SEC. 4. The Secretary shall attend the General Meetings of the Society and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings. He shall be Secretary of the Council. He shall be custodian of all record books and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the cooperation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and shall transmit a copy of this list to the American Medical Association, transmitting to its secretary each month a report containing the names of new members and the names of those dropped from the membership roster during the preceding month. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall employ such assistants as may be ordered by the Council and shall make an annual report to the House of Delegates. He shall supply all component societies with the necessary blanks for making their annual reports, and shall collect from them the regular per capita assessments and turn the same over to the Treasurer. The amount of his salary shall be fixed by the Council.

SEC. 4. The Speaker shall preside at the meetings of the House of Delegates and shall perform such duties as custom and parliamentary usage requires.

SEC. 5 The Vice-Speaker shall officiate for the Speaker in the latter's absence or at his request. In case of death, resignation, or removal of the Speaker, the Vice-Speaker shall officiate during the unexpired term.

CHAPTER VI

COUNCIL

SECTION 1. The Council shall meet on the day pre-

ceding the Annual Session, and daily during the Session and at such other times as necessity may require, subject to the call of the chairman or on petition of three Councilors. It shall hold an annual meeting during January for purposes of organization and other business. Its Chairman shall make an annual report to the House of Delegates.

SEC. 2. Each Councilor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and to keep in touch with the activities of and to aid in the betterment of the component societies of his district. He shall make an annual report of his work, and of the condition of the profession of each county in his district at the Annual Session of the Council. The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement, but this shall not be construed to include his expense in attending the Annual Session of the Society.

SEC. 3. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-Laws.

The Council shall be the Board of Censors of the Society. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the component societies, or to this Society. All questions of an ethical nature brought before the House of Delegates or the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or component societies, on which an appeal is taken from the decision of an individual Councilor. Its decision in all cases, including questions regarding membership in this Society, shall be final.

SEC. 4. Charters shall be issued to county societies only on approval of the Council, and shall be signed by the President and Secretary of this Society. Upon the recommendation of the Council, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

SEC. 5. In sparsely settled sections the Council shall have authority to organize the physicians of two or more counties into societies, to be suitably designed so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

SEC. 6. The Council shall provide for and superintend the issuance of all publications of the Society, including proceedings, transactions and memoirs, and shall have authority to appoint an editor of the Journal and such assistants as it deems necessary. It shall prescribe the methods of accounting and through a committee of three of its members, to be known as a Committee on Auditing and Finance, shall audit all accounts of this Society, and with the Treasurer, supervise the investment of funds. The Council shall adopt an annual budget providing for the necessary expenses of the Society, which shall be prepared and presented for its consideration by the Treasurer and Secretary at the first meeting of the Council in January of each year. Its Chairman shall submit an annual report to the House of Delegates, which shall specify the character and cost of the publications of the Society, the amount and character of all of its property, and shall provide full information concerning the management of all affairs of the Society which the Council is charged to administer.

SEC. 7. The Council shall by appointment fill any vacancy in office not otherwise provided for which may occur during the interval between annual meetings of the House of Delegates; the appointee shall serve until his successor has been elected and has qualified.

SEC. 8. The Council may elect as Secretary one who need not be a physician nor a member of the Society.

SEC. 9. The salaries of all employees of the Society shall be fixed by the Council.

SEC. 10. The Council shall provide such headquarters for the Society as may be required to conduct its business properly.

CHAPTER VII

COMMITTEES

SECTION 1. The standing committees of this Society shall be as follows:

A Committee on Scientific Work.
A Committee on Public Policy.
An Editorial Board.
A Committee on Medical Defense.
A Committee on Medical Education and Hospitals.
A Committee on Medical Economics.
A Committee on Health and Public Instruction.
A Committee on Necrology.

Unless otherwise provided in these By-Laws, each of these committees shall consist of three members, each of whom shall serve for a term of three years. One member of each of these committees shall be appointed annually by the incoming President, by and with the consent of the House of Delegates, provided that at the 1927 Annual Session one member of each of the foregoing committees shall be appointed for a term of three years, one each for two years, and one each for one year; provided further, that at the 1926 Annual Session all committee members shall be elected by the House of Delegates in accordance with the custom of that House.

SEC. 2. The Committee on Scientific Work shall consist of three members and the Secretary and shall study and recommend the character and scope of the scientific proceedings of the Society and its constituent societies. Thirty days previous to each Annual Session it shall prepare and issue a program announcing the order in which papers and discussions shall be presented.

SEC. 3. The Committee on Public Policy shall consist

of three members, and the President, the President-Elect and Secretary. The Committee shall present to those public officers charged with the duty of enacting or enforcing measures in the interest of public health, all available information that may in any way assist such officers honorably to discharge their responsibilities.

SEC. 4. The Editorial Board shall consist of three members and shall be in charge of the affairs of the Journal. Its Chairman shall render an annual report to the House of Delegates and to the Council at its January meeting. Important questions of editorial policy shall be submitted to the Council.

SEC. 5. The Committee on Medical Defense shall prepare plans and establish rules for the defense of members of this Society against whom suits for alleged malpractice have been brought. It may assist in the defense of any member sued for alleged malpractice if the member was in good standing and had complied with the rules of the committee when the service on account of which suit was brought was rendered.

SEC. 6. The Committee on Medical Education and Hospitals shall serve in this State for the Council on Medical Education and Hospitals of the American Medical Association, and shall have referred to it all questions pertaining to hospitals and medical education.

SEC. 7. The Committee on Medical Economics shall investigate matters affecting the economic status of physicians as a profession, and shall report annually to the House of Delegates such recommendations as may, in its judgment, seem proper.

SEC. 8. The Committee on Necrology shall consist of all members of the Council and the Editor of the Journal and shall prepare for each session suitable notice of deceased members.

SEC 9. The Committee on Health and Public Instruction shall consist of three members. It shall carry on such activities in the field of health and the dissemination of information in relation thereto as the House of Delegates and Council may direct.

SEC. 10. Reports of the standing and special committees shall be published in the official Journal preceding the date of the Annual Session of this Society, and these reports must be in the hands of the Secretary sixty days in advance of the Annual Session.

CHAPTER VIII

DUES AND ASSESSMENTS

SECTION 1. The annual dues and assessments shall be determined by the House of Delegates, and shall be levied per capita on the members of the Society. They shall be payable on or before January 1st, of the year for which they are levied. The Secretary of each component Society shall cause to be collected and shall forward to the offices of the Society the dues and assessments for its members, together with such data as shall be required for a record of its officers and membership. Any member whose name has not been reported for enrollment and whose dues for the current year have not been remitted to the Secretary of this Society on or before March 31st shall stand suspended until his name is properly reported and his dues for the current year properly remitted.

SEC. 2. The record of payment of dues and assessments on file in the offices of the Society shall be final as to the fact of payment by a member and as to his right to participate in the business and proceedings of the Society and of the House of Delegates.

SEC. 3. For the purpose of medical defense a member shall be deemed in arrears from and during the period extending from February 1st of the current year until his dues and assessments shall have been received at the offices of the Society, having been remitted by the Secretary of the component society of which he is a member.

SEC. 4. Any county society which fails to make the reports required, at least thirty days before the Annual Session of the State Society, shall be held suspended, and none of its members or delegates shall be permitted to participate in any of the proceedings of the Society or of the House of Delegates.

CHAPTER IX

The ethical principles governing the members of the American Medical Association shall govern members of this Society.

CHAPTER X

The deliberations of this Society, except as may be provided otherwise in the Constitution and By-Laws, shall be conducted in accordance with parliamentary usage as defined in Robert's Rules of Order.

CHAPTER XI

SECTION 1. All county societies now in affiliation with the State Society or those that may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws shall, upon application to the Council, receive charters from this Society, provided that their Constitutions and By-Laws shall have been submitted to the Council and received its approval.

SEC. 2. Only one component medical society shall be chartered in each county.

SEC. 3. Each county society shall judge of the qualifications of its members, subject to review and final decision by the Council of the State Society. Every reputable and legally qualified physician who does not practice, nor profess to practice sectarian medicine or whose practice is not shown to be in conflict with the principles of ethics of the American Medical Association, and who is a bona fide resident of the same county, shall be eligible for election to membership.

A member of a component society whose license has been revoked shall be dropped from membership automatically as of the date of revocation. The Council of the State Society shall have final authority to expel

a member should a component county society fail to do so after being so requested by the Council.

A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

SEC. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him, shall have the right to appeal to the Council, whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination.

SEC. 5. In hearing appeals the Council may admit oral or written evidence as in its judgment will most fairly present the facts, but in the case of every appeal both as a board and as individuals, the Councilors shall, preceding all such hearings, make efforts at conciliation and compromise.

SEC. 6. When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the Secretary of his society, without cost, for transmission to the Secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he removes such member shall be considered to be in good standing in the county society from which he was certified and in the State Society to the end of the period (respectively) for which his dues have been paid.

SEC. 7. Each county society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it includes every eligible physician in the county.

SEC. 8. At some meeting in advance of the Annual Session of this Society, each component county society shall elect one or more delegates and an equal number of individual alternates therefor to represent it in the House of Delegates of this Society, in accordance with Chapter III, Section 2, of these By-Laws. The secretary of each county society shall send a list of such delegates and alternates to the Secretary of this Society at least thirty days before the Annual Session. Representation in the House of Delegates shall be contingent on compliance with the foregoing provisions.

SEC. 9. The Secretary of each county society shall keep a roster of its members and, if practicable, a list of non-affiliated physicians, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary by Council. He shall send a copy of the program of each county meeting to his district Councilor and to the Secretary.

SEC. 10. Each county society shall appoint or elect one or more of its members as a member of an auxiliary Committee on Public Policy, and the county society secretary shall send his name and address at once to the Secretary of this Society. The Committee on Public Policy of this Society shall formulate the duties of this auxiliary committee and supply each member with a copy. The auxiliary committee-men shall be accountable to their county societies and to the Council for prompt response to and continued cooperation with the Committee on Public Policy of this Society.

CHAPTER XII

SECTION 1. These By-Laws may be amended at any Annual Session by a majority vote of the delegates present at that session, if the proposed amendment has been properly submitted to the House of Delegates and has lain on the table for one day.

SEC. 2. Upon the adoption of this Constitution and these By-Laws, all previous Constitutions and By-Laws are thereby repealed.

SECRETARY CROWNHART: The report will be received and is ordered laid on the table pursuant to the Constitution.

DR. C. A. HARPER (Madison): Mr. President, I now move that the House adjourn until seven-fifteen Tuesday Evening, September 14th.

The meeting adjourned at nine o'clock.

ADJOURNMENT

HOUSE OF DELEGATES

TUESDAY EVENING SESSION

September 14, 1926

The second session of the House of Delegates was called to order at seven-thirty o'clock in the Crystal Room, Hotel Loraine, by the Secretary, Mr. George Crownhart.

SECRETARY CROWNHART: Each of the past five years of this Society has witnessed some decided accomplishment in the line of medical organization that has made for the betterment of the profession, particularly in its dealings with the public. When Dr. Hall was president of this Society, you voted to establish a lay secretaryship. When Dr. Connell was president, your dues were raised from $4 to $9 for the purpose of providing such a lay secretaryship, and you had the first year of that office. During Dr. Sleyster's term, your Society furthered in many ways a very desirable contact with the laity, while during Dr. Cunningham's term of office the Wisconsin Legislature accepted the recommendation of this Society and established a basic science law.

We come now to the term of your presiding officer of this evening, and in introducing him to you I take this opportunity to say that during his term of office there has been a tremendous activity on the part of every officer of your State Society. Every Councilor has either had or is now arranging a Councilor District Meeting, and the Council has taken on a renewed activity that spells progress in the work of your State Society. Not content with inspiring this work, your President has visited every Councilor District Meeting held so far this year, and in addition, many County Societies.

I need not tell you that these visits mean a great sacrifice of time at no recompense whatsoever, and that your President has given most unselfishly. The words of your constitution, "The President shall be the real head of the profession of the state during his term of office," are now a spirit and I hope a precedent that may be followed in the future. When an officer gives so liberally of his time during his year of presidency, it means a great deal to your State Society. It is a real source of pleasure that I present to you now your presiding officer of the evening, your President, Dr. Joseph F. Smith of Wausau. (Applause.)

President Smith took the chair.

PRESIDENT SMITH: I assure you it has been a real pleasure on my part to work with the State Medical Society of Wisconsin during the year. I have had the opportunity to visit a number of County and District Meetings and have had a contact with the men that I never had before. This has been an inspiration and a pleasure. I feel very much gratified at the spirit that prevails throughout the state in medical circles. I am deeply grateful for your hearty cooperation and help. Without this help we should not be able to accomplish anything, but there has been a remarkable spirit of cooperation which we appreciate deeply.

As delegates, you are here to represent the other two thousand members who are not here. Matters of importance affecting our public relations are to be dealt with here, and I bespeak on your part the most earnest and careful consideration of these matters.

We shall endeavor to make the sessions as short and as snappy as possible, and we hope that you will be present at every session and give the matters that are presented, your very careful consideration. I am sure you will do that.

In order to facilitate the work of the evening, I should like to ask you to be as brief as possible in the remarks you may have to make, and endeavor to talk to the point.

Our chief object here, of course, will be to accomplish and transact business; we are not here for any parliamentary display or anything of that sort, and I am sure you all appreciate that.

I want to say also that to those who are here as alternates, we desire to extend the privilege of the floor in any discussion that they may desire to bring up on any question before the House. If your delegate is here, of course you are not entitled to a vote.

We will take up the regular work of the evening. We will first hear the report of the Chairman of the Committee on Credentials, Dr. Lindsay.

DR. W. T. LINDSAY (Madison): Mr. President, we have checked the registrations at the desk and we find that there is a quorum present. I move, Mr. President, that this compilation be accepted as the roll of this body.

The motion was seconded by Dr. G. F. Adams of Kenosha, and carried.

PRESIDENT SMITH: The next item on the program is the report of the Committee on Public Policy and Legislation, Dr. O. B. Bock, Chairman.

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

To the Members of the 1926 House of Delegates:

Your committee divides its report into two parts that its consideration by the House may be facilitated.

I. LAY EDUCATIONAL ACTIVITIES

Through the institution of weekly service to the newspapers of this state, your committee feels that the Society has now a well-rounded program of lay educational effort, each portion of which has proved its worth and deserves continuation. We have, first, our annual presentation of some three hundred odd subscriptions to Hygeia. These are presented in the main to public officers, both state and county. This field is so well known as to need no further discussion. We would request an appropriation of $500 for continuance during 1927.

Secondly, we have the annual lay issue of our Wisconsin Medical Journal. During the past year upwards of 9,000 copies were sent throughout the state. Again your committee feels that each member is acquainted with this effort so that little discussion is needed. We would request an appropriation of $1,000 that we may publish the Fourth Annual Lay Issue as a supplement to the January, 1927, issue of our Journal.

Third, our series of weekly releases to upwards of thirty daily papers and one hundred and sixty weekly papers in this state has been a success exceeding our every anticipation. This service presents the only method by which we may bring to the attention of hundreds of thousands, facts relating to scientific medicine in individual and community health. An exhibit of clippings from this service is presented in connection with this meeting. We believe this exhibit speaks for itself and that the results more than warrant a continuation of the service. The appropriation requested is $2,500.

II. LEGISLATIVE PROPOSALS

Beginning January, next, our Wisconsin Legislature will again be in session. A large number of measures affecting scientific medicine and public health will undoubtedly be presented. That the profession of this state may present to the members of the Legislature the facts to which they are entitled regarding these measures, your Committee proposes that this House again authorize the Executive Secretary to be in attendance at the sessions to such an extent as he and the Committee may deem necessary; that the House authorize presentation of the group opinions of the profession on important measures affecting scientific medicine and presentation of such recommendations as this Society may adopt (total cost not to exceed $2,000).

Your committee has appointed several sub-committees during the year past and as result of their work and

joint meetings, we recommend to this House the approval of the following legislative proposals:

1. Basic Science Act. The Wisconsin Basic Science law, in application as well as in principle, has proved its worth in the protection it offers the people of this state from fraud, deceit and quackery in the field of treating the sick. Your Committee is in receipt of no request or information indicating necessity for any change in this law. It is therefore recommended that this Society endorse the Act as it stands without change.

2. Practice of Medicine and Surgery, Osteopathy and Osteopathy and Surgery. The State Board of Medical Examiners has recommended that the following changes be made to facilitate the work of that Board:

a. Permit the board to use its discretion in appointing independent legal counsel.

b. Require all foreign applicants to have their credentials translated with verification before presenting such credentials to the Board.

c. Permit the Board to employ but one masseur to examine masseurs instead of the three now required.

d. Provide that conviction for any offense which is now cause for revocation of license, upon order of the judge, be changed to make such revocation automatic. For example, the law now provides that where a physician is found guilty of criminal abortion the judge, in addition to other sentence, shall revoke the license. In the past this requirement upon the judge has frequently been overlooked leading to endless confusion and defeat of the intent of the law. The change would simply make revocation of the license automatic upon the accused being found guilty.

e. Provide that the reciprocity fee in this state correspond in each instance to the similar fee in the state from which the applicant presents his credentials, but in no case to be less than $50, the present fee.

f. Provide for the discontinuance of itinerant practitioners.

g. Provide that the remuneration to members shall be $25 a day instead of $10.

3. The Wisconsin statutes chartering the State Medical Society have not been materially changed since their enactment in 1841. Many of the essential provisions do not now conform to our necessary practice. It is recommended that this law be changed as may be necessary in the light of present day organization of the profession.

4. A preliminary survey discloses the astounding fact that the salaries for physicians in state employ are limited by law and that such salaries have not been revised for upwards of fifteen years. Thus the State Board of Control is unable to offer over $3,500 and maintenance to the physician director of such important institutions as the central state hospitals at Mendota and Winnebago and materially less for other institutions. Your Committee recommends that this situation be pointed out to the Joint Committee on Finance with the recommendation that such salaries be left to the discretion of the State Board of Control to be limited only by such budgets as may be necessary and required.

5. The American Medical Association has endorsed a model law to provide that all containers of household lye and similar caustic preparations be labeled as "Poison" and that such labels also list at least two antidotes. Your Committee recommends that it be authorized to present this model bill to the state manufacturers' association in conference, and to then take such further steps to secure safety as the joint conference may deem necessary and advisable.

6. A special sub-committee composed of Drs. A. W. Rogers, William Cradwell and B. B. Rowley have been investigating the general subject of commitment of the insane and feeble-minded. This sub-committee has made a detailed report which needs careful study and advice of legal counsel before it may well be considered. Your Committee suggests that this House specifically authorize the Council at its January meeting to consider our further report with respect to this subject and pass upon what proposals shall be presented to the Legislature for its consideration.

CONCLUSION

Though for purposes of consideration this report has been divided into two general sections, we desire to emphasize and stress the fact that the work of this committee is based upon but one principle—that of lay education. While the Society may go far in this work as a group, we must never overlook the fact that most valuable contribution may be made by each individual member in a personal way. Particularly is this true in matters before the Legislature. Your committee reasserts its belief and position: That it is the duty of the profession to provide accurate information from the viewpoint of medical science to those charged with the duty of law enactment and enforcement, but beyond that, the responsibility for decision and choice lies with those elected by the people and responsible to them.

Respectfully submitted,

O. B. Bock, *Chairman.*
D. L. Dawson.
J. J. McGovern.
(Mr.) J. G. Crownhart,
Secretary, ex officio.

Secretary Crownhart: Dr. Bock is ill and unable to be present. The President has appointed as a Reference Committee of the House on this subject, Dr. F. B. McMahon, of Milwaukee, as Chairman. (Not present.)

The other two members of the Committee are Dr. Rolla Cairns, of River Falls, and Dr. Karl W. Doege, of Marshfield. This report is automatically referred to that Reference Committee and their report will be brought before this body on Wednesday evening.

President Smith: The next item is the report of the Editorial Board, Dr. Oscar Lotz, Chairman. (Not present.)

I will call on Dr. Hoyt E. Dearholt to make the report.

REPORT OF THE EDITORIAL BOARD

To the Members of the 1926 House of Delegates:

During the past year the efforts of the Editorial Board

of your Journal have been in a general way directed along several lines.

1. To make the Journal increasingly attractive, interesting, and valuable to the members of the State Medical Society.

To this end your Board has tried to conduct the various departments of the Journal so that all members, no matter what their special liking, might find something of interest in every issue. In the department of Original Articles we have tried to present chiefly the papers of special value to the men in general practice, at the same time giving due consideration to the various specialties.

In the Editorial Section stimulating articles on pertinent questions have been brought to the attention of the members. May we take this opportunity to express our appreciation to the various contributing councilors for their assistance and co-operation.

The President's page has been an innovation and one we believe to be decidedly worth while. Dr. Smith has considered the Presidency not only an honor but a very definite obligation.

Although our business as physician is largely a matter of case reports, we do not seem to tire of them. The Journal Clinic is today a well established department and invariably makes interesting reading matter. Dr. Warfield's regular contributions are greatly appreciated by the Board and do much to enhance the value of this section. To Dr. Stovall, the editor of the Preventive Medicine Section many thanks are due for his untiring efforts to keep this section supplied with current and valuable discussions.

2. To make the Wisconsin Medical Journal a Journal for and by Wisconsin physicians.

In the carrying out of this policy there is no definite intention to exclude outside physicians but rather to give our own members the opportunity to present to their fellow members the results of their experiences and conclusions and thereby promote more intra-society discussion. This is of course no ironclad policy but largely a matter of giving preference to home talent. Papers presented at the annual meeting of visiting physicians will of course be published as heretofore.

3. To remove the burden of the cost of publishing from the shoulders of the members to the Journal itself.

This has been very largely accomplished by increasing the rates as well as the amount of advertising matter. The splendid efforts and interests of the managing editor, Mr. J. G. Crownhart, are entirely responsible for this good financial showing.

Finally, may we again make a plea for more suggestions and criticisms to the end that the Wisconsin Medical Journal shall be one of the best State Medical Journals.

Respectfully submitted,

OSCAR LOTZ, *Chairman.*

DR. HOYT E. DEARHOLT (Milwaukee): I have nothing to add unless it be to emphasize that the Editorial Board is always eager and anxious to obtain suggestions from the membership as to the kind of Journal they would like to have. After all is said and done, the best report of the committee is offered by the Journal itself.

PRESIDENT SMITH: The next order of business is the report of the Committee on Medical Defense, Dr. A. J. Patek, Secretary of the Committee. (Not present.)

REPORT OF THE COMMITTEE ON MEDICAL DEFENSE

To the Members of the 1926 House of Delegates:

The past year's record of State Medical Defense is a continuation of previous successful accomplishment.

Did we have a list before us of the number of members who have had the benefit of the Society's protection since the inauguration of this benevolent, paternalistic function of your organization, few indeed would there be who could still remain without the fold.

Far be it from our purpose to claim that there is not serious objection to our entering into the defense of an occasional individual, perhaps unmerited, case. Be this as it may, your Committee has from the beginning had the conviction that the general principle of defense by the majority, for the minority, will develop a favorable esprit de corps amongst the profession; also that, even though in an occasional instance doubt may be cast upon the morality of offering defense, so disproportionate are these negative instances that the large, honest group that has asked for and been given successful help, speaks eloquently for the unquestioned morality of the issue.

To further emphasize this let me quote this past year's record of performance:

Total number submitted	16
Cases successfully disposed of	6
Cases tried and lost	*None*
Cases threatened but no suit started to date	3
Cases pending	7

This record is significant in showing that none of the cases tried have been lost; and we have Mr. Spooner's further statement that it is his expectation that in none of the cases pending or not disposed of will adverse judgments be rendered. (This is, of course, an expectation based upon probabilities only.)

The grounds upon which suits brought this past year are based, are those that usually obtain in malpractice cases, such as the treatment of fractures, x-ray burns, unlawful detention, negligence in diagnosis, negligence in operative technique, etc.—a diversification that includes every branch of general and special practice, and indicating too that none enjoy an immunity from attack.

Several of these suits were brought as counter-claims upon a physician's effort to collect what he deemed a legitimate fee for services. This has always been a favorite means of endeavoring to evade payment, and many a doctor has settled a claim upon unfavorable terms, or canceled a claim entirely, in order to avoid unpleasant publicity—innocent though he may have been of wrong-doing.

Your executive secretary, Mr. J. G. Crownhart, has recently sent a circular letter to every member of this Society, in which he calls attention to counter-claims brought as purely retaliatory measures. He quotes the

Wisconsin statutes that "very justly provide that a malpractice suit may not be commenced after a period of two years has expired from the time the physician last saw the patient. The statutes also provide that a claim for services is not outlawed for a period of six years."

Your State Society is willing and ready to defend all legitimate claims that come to it from members who are entitled to such service. We wish, however, to emphasize that this defense, while given to the individual at a cost that is so insignificant as to be negligible, is in the aggregate a heavy drain upon the Society. Again quoting our Secretary: "Every member of the Society should use his best judgment in commencing legal actions to collect claims for services, to the end that he does not bring upon himself and the profession generally, this not unusual form of retaliation founded upon dishonesty rather than any actual case of malpractice."

Respectfully submitted,

ARTHUR J. PATEK, *Secretary.*

We will skip that for the time being and pass to the next order of business, the report of the Committee on Health and Public Instruction, Dr. W. D. Stovall, Chairman. (Not present.)

REPORT OF THE COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

To the Members of the 1926 House of Delegates:

The activities of this committee which has been a continuation from the previous year need not be enumerated in this report. The report of last year may be found in the Journal.

During the last year a matter of great importance has come to our attention. Year before last the State Conference of Social Work held a better cities contest. Among some of the obvious deficiencies, the lack of prevention work among children not of school age stands out. As a result of this deficiency several of the cities desired to start at once pre-school clinics. The chairman of this committee was asked to outline a plan whereby these clinics could be started in communities where there is no full-time health officer. The importance of the problem to both the medical men of the state and to the local communities seemed great. It was deemed advisable to effect the organization of these clinics through the state and local societies. The problem is important for the medical society for two reasons.

First, because of the responsibility of the medical men of the state for disease prevention in their respective communities.

Second, because if the medical profession is going to be active in formulating public health policies and shaping the trend of community medicine, it must have a public health program and be not only passively interested but aggressive in its execution.

For these reasons the following plan was suggested to each of the cities requesting assistance:

ORGANIZATION OF PRE-SCHOOL CLINICS

Development of pre-school clinics through the cooperation of the state and county medical societies, the State Board of Health, the local health department and health committee.

1. The Board of Health will organize and run the first clinic held in the community. They will recommend standard procedures. This will include types and methods of examination, record forms, and follow-up work.

2. The local medical society will be acquainted with the plan, and asked by the local health committee to name a member of the local society as the physician to take charge of the clinic. The man selected should be a young man whose practice is not yet so large as to occupy the whole of his time and one who has an interest in diseases of children. He should spend time with the State Board of Health physician during the time that the first clinic is conducted. This will thoroughly acquaint him with the methods to be used and the plan under which the clinic is organized. This selection by the local society should be for as long a period as the member selected will serve. There should be no rotation of service in the clinic. This would mean divided responsibility and eventual demoralization with a consequent failure of the scheme. The physician should receive reasonable compensation for the time he works. The money to meet the expenses of these clinics will be raised in the city by any method which the local Health Committee deems advisable.

This scheme is suggested because it not only provides for the participation of the local medical society in the solving of the medical problems which are of community importance, but because it also provides the locality with a permanent clinic which is its own.

The committee recommends that the society endorse this plan, suggest a better one, or what would be better appoint a committee to formulate plans and policies which will be a program for the state and local societies for aiding in the solution of medical problems which touch the whole community.

Below is also given an outline of a health program to be given in Milwaukee, October 3-4-5-6, under the auspices of the State Conference of Social Work. The committee recommends that the president of the society be requested to appoint two men from the membership of the society to attend these meetings and discuss the subjects.

PRE-SCHOOL CLINICS IN COMMUNITIES NOT MAINTAINING A FULL-TIME HEALTH ORGANIZATION

First half day.

A plan for organization.

a. The city's responsibility.
b. The state's responsibility.
c. The local medical profession.

Second half day.

Health administration in communities without a full-time health organization.

A plan for organization.

a. The city's responsibility.
b. The state's responsibility.
c. The local medical profession.

Respectfully submitted,
W. D. STOVALL, *Chairman.*

The next item in the order of business is the report of the Committee on Medical Education, Dr. C. R. Bardeen. (Not present.)

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION

To the Members of the 1926 House of Delegates:

The last Congress on Medical Education of the American Medical Association was marked by addresses of the presidents of several American and Canadian universities and by other laymen interested in medical education in its more general aspects, as well as by medical teachers and practitioners interested in the subject from the professional point of view. Among the topics considered were medical school organization, especially from the standpoints of the university and of formal education in general and research, graduate, post-graduate and extension medical education, and internships in medical education.

The advances made in medical knowledge in recent years and the successful application of these advances to the prevention and cure of disease have led to large increases in expenditures for medical research, medical education and preventive medicine. Philanthropists and taxpayers have been called upon to contribute to these expenditures and have responded with increasing liberality as their value has been demonstrated. Large as has been the increase in expenditures for these purposes, the sums spent are insignificant compared with corresponding public needs. The increasing density of population under the conditions of modern civilization and the increasing complexity of life, call as never before for increase of medical knowledge and increase in skill and wisdom in the application of this knowledge to human needs. The medical profession is called upon to educate the public as to the importance of medical research. medical education and wise procedures of medical practice. Along these lines our State Society has taken a valuable forward step in establishing a news service. On the other hand, the public is called upon through gifts and taxes to provide adequate means for medical research, for professional education in the medical sciences and for post-graduate medical instruction.

Along these lines Wisconsin has now made a good beginning. Marquette University, with its endowments for medical education, is making increasing use of the facilities afforded by Milwaukee and is making an effective appeal for an increase of resources for its important work.

A medical school was one of the chief divisions contemplated when the State University was established. Over fifty years passed, however, before the first half of the medical course was inaugurated there and over seventy-five years before a complete medical course was established. The third year of the medical course was given for the first time last year and the work of the fourth year of the course has just been undertaken for the first time. Compared with neighboring states, Wisconsin has been very backward in making provision for this essential branch of higher education. A good beginning has now, however, planned to re-establish apprenticeship teaching and to make use so far as practical of the natural medical centers and medical leaders of Wisconsin and not to confine the work to Madison. Marquette University has already called for the co-operation of the hospitals and members of hospital staffs of the state for providing systematic instruction for the required intern year. Both Marquette and the State University need the active co-operation and support of the medical profession of the state in furthering the important work which they have undertaken, and in turn desire to co-operate with the practitioners of the state in making medicine in Wisconsin something of which every citizen may well be proud.

Respectfully submitted,
C. R. BARDEEN,
For the Committee,

Next is the report of the Committee on Necrology.

REPORT OF THE COMMITTEE ON NECROLOGY

To the Members of the 1926 House of Delegates:

It becomes the duty of your committee to report that during the year ending December 1, 1926, the following physicians of Wisconsin have died. The names of those who were members of this Society are printed in bold face type:

Ackley, Samuel B.....Oconomowoc.
Alcorn, David N..... Sierra Madre, Cal.
Corbett, M. E.....Oshkosh.
Cristman, Edgar S.....Barron.
Cunningham, Robert B.....Cadott.
Daniels, J. S..... Omro.
Doughty, P. H.....Juneau.
Fox, Wm. E... .....Milwaukee.
Geyer, C. W.....Milwaukee.
Gregory, Daniel H.....De Pere.
Habhegger, C. J.....Watertown.
Haven, Walter S.....Racine.
Hobart, James C..... Birchwood.
Hoegh, Knute O..... Minneapolis, Minn.
Hufnail, W. H..... Grandview, Wash.
Huntington, Myron L.....Port Wing.
John, F. F.....Milwaukee.
Kappelman, Frederick W.....Milwaukee.
Karzke, William C..... Milwaukee.
Keland, George A..... Madison.
King, A. T.....Milwaukee.
Larrabee, William M..... Waupun.
Lyman, John Van Reed.....Eau Claire.
Marquis, Arthur J.....De Pere.

McDougall, G. T. ..... Fond du Lac.
McGovern, Patrick H. ..... Milwaukee.
Meachem, John G. ..... Racine.
Melaas, Wilbur G. ..... Beloit.
Millard, Frank D. ..... Milwaukee.
Mitchell, Robert S. ..... Appleton.
Morley, F. E. ..... Viroqua.
Mueller, Arnold ..... McHenry, Ill.
Nintzel, Reimer N. ..... Oshkosh.
Olson, Chresten ..... Racine.
Pember, J. F. ..... Janesville.
Potter, Jesse Y. ..... New London.
Pugh, George A. ..... Kenosha.
Ragan, William J. ..... Shawano.
Ray, Claude F. ..... Milwaukee.
Read, Flora A. ..... Elgin, Ill.
Riley, P. E. ..... Eau Claire.
Roemheld, Frederick ..... Milwaukee.
Rogers, E. H. ..... Stevens Point.
Rohr, John H. ..... North Milwaukee.
Ross, Hugh R. T. ..... Ladysmith.
Sandborn, Manly J. ..... Appleton.
Schlag, R. A. ..... Prairie du Sac.
Schoen, A. F. ..... Mayville.
Schultz, Ferdinand M. ..... Pasadena, Calif.
Sharp, John H. ..... Genesee Depot.
Shimonek, Godfrey A. ..... Yonkers, N. Y.
Stockman, B. G. ..... Woodville.
Stolze, J. A. ..... Wausau.
Suby, J. I. ..... Stoughton.
Taylor, Richard W. ..... Pewaukee.
Trevitt, Margaret ..... Wausau.
Trowbridge, P. T. ..... Hayward.
Wheeler, W. G. ..... Racine.
White, W. E. ..... Burlington.
Whitney, D. C. ..... Rice Lake.
Wilkinson, John A. ..... Hales Corners.
Willard, Clarence J. ..... Wauzeka.
Youmans, Laurel E. ..... Mukwonago.
Ziegler, E. J. ..... Oxford.

Respectfully submitted,
THE COUNCIL,
MR. J. G. CROWNHART, *Secretary.*

SECRETARY CROWNHART: We have a report of this Committee in the Handbook, and the Secretary will appreciate any corrections or additions. Please understand that this report is compiled as of August 15th, and if there have been any deaths since that time we haven't them in the report. Such deaths will be included in the report for next year. Any corrections or additions will be included in the printed report.

The name of Dr. E. H. Rogers of Stevens Point was offered to be added.

PRESIDENT SMITH: Next is the report of the Committee on Hospitals, Dr. R. C. Buerki. (Not present.)

REPORT OF ADVISORY COMMITTEE ON HOSPITALS

To the Members of the 1926 House of Delegates:

There are in the United States at present a total of 6,896 hospitals of all types and kinds with 802,065 beds, constantly caring for an average of 629,362 patients.

In the state of Wisconsin there are 266 hospitals with a bed capacity of 22,971. Of this bed capacity, 7,558 are available for general cases, of which only 4,805 are in average use. Some 11,167 are available for nervous and mental cases, of which 10,279 are in average use. For tuberculosis, 1,341 are available of which 1,188 are in average use. While under the head of miscellaneous there are 2,905 available, of which 1,922 are in average use. Of these 226 hospitals 90, with a bed capacity of 14,396, are hospitals maintained by government agencies; six are federal, 19 state, 52 county, 12 city and one city and county hospital.

Of the 146 non-governmental hospitals, 54 are denominational, 59 individual and partnership, and 33 are conducted by independent associations.

In Wisconsin the following eleven counties have no hospitals for community use: Adams, Clark, Florence, Green Lake, Iron, Jackson, Kewaunee, Marquette, Vilas, Washburn, and Waushara.

There are 1,614 physicians listed on the staffs of 160 hospitals. Sixty-four hospitals in the state have a resident physician staff numbering 128. Thirty-three hospitals have 92 available internships of which 89 are filled.

Respectfully submitted,
R. C. BUERKI,
For the Committee.

Next is the report of Delegate to the Council on Medical Education of the American Medical Association, Dr. C. R. Bardeen, Delegate. (Not present.)

REPORT OF DELEGATE TO ANNUAL CONGRESS ON MEDICAL EDUCATION, MEDICAL LICENSURE AND HOSPITALS

To the Members of the 1926 House of Delegates:

The annual congress was held in Chicago on February 15, 16, 17 and 18, 1926.

The present method of medical education was discussed from many angles. The possibility of shorter vacations on the quarter system by Doctor Ray Lyman Wilbur of Stanford led to considerable discussion. He closed his paper with the following paragraph: "Is it not about time to break down the rigid honeycomb of old procedures, which is getting so thickened that we often have more wax than honey? Is it not about time to look at the training of the physician as a new problem to be achieved in new ways? If we can get some of the arteriosclerosis out of medical education we can produce better physicians in shorter time with the same facilities."

Doctor Arthur Dean Bevan of Rush Medical College closed his paper with the following paragraph: "The future American medical schools will be developed by the cooperation of the university and the community, and will be conducted with the conception of not only teaching medicine and carrying on medical research, but also

as institutions which will bring to the community the great benefits of modern scientific medicine."

Doctor E. E. Irons, Dean of Rush Medical School, discussed the purpose of an internship, closing his paper with the following paragraph: "The suitability of a hospital for the purpose of an internship depends on the ideals and character of its staff, on the ability and desire of its administration to provide the best care possible for the sick, and on the presence of a spirit of inquiry and progress, and not primarily on whether it has a rotational or a non-rotational system."

Respectfully submitted,

C. R. Bardeen.

Next is the report of the Committee of One on Goiter, Dr. A. J. Patek.

REPORT OF COMMITTEE OF ONE ON GOITER PREVENTION

To the Members of the 1926 House of Delegates:

This committee has not met with any other bodies since the last annual meeting. The State Board of Health, through the publications of its Secretary, Dr. C. A. Harper, has advocated the use of iodized salt, and it is my belief that this practice has been quite generally adopted here as it has in many other states.

Having been of assistance in furthering this plan, your committee now has no further function, and therefore requests its discharge.

Respectfully submitted,

Arthur J. Patek.

Secretary Crownhart: This report in the Handbook simply is a statement of the work that the Committee has accomplished with a request that the Committee be discharged.

President Smith: The Chairman will entertain a motion to accept the Committee's report.

Dr. J. W. Powers (Milwaukee): I move the report of the Committee be accepted and the Committee be discharged.

The motion was seconded by Dr. W. C. G. Henske, of Chippewa Falls, and carried.

President Smith: The next is the report of the Committee on Cancer, Dr. J. P. McMahon, Chairman.

REPORT OF THE COMMITTEE ON CANCER

To the Members of the 1926 House of Delegates:

During the last year numerous reports have come forth from scientists, from institutions for the study and control of cancer, from statisticians, and from clinicians who have had opportunities to treat large numbers of patients suffering from cancer. The outstanding facts contained in these reports are that the incidence of cancer appears to be on the increase—that while philanthropists have been and still are making funds available for research into the cause and treatment of cancer and eminent scientists and sociologists have been intensively devoting unusual talents and immeasurable energy to the cancer problem, no progress has been made by way of reducing the incidence and comparatively little progress has been made by way of reducing the mortality and—that the most promising field for immediate endeavor is that of putting forth renewed efforts to impress upon all of the members of the medical profession the necessity of being ever on the alert for early symptoms and to continue to teach the laity to recognize the early suggestive symptoms and to consult their family physicians immediately after the appearance of such symptoms. The above mentioned reports have been heralded by the Lay Press by means of the usual newspaper technique designed primarily to attract interest and therefore constitute news irrespective of the conclusions of the investigators and essayists and regardless of the scientific and clinical bases for the statements so heralded.

Among the afore mentioned reports those receiving the most publicity were that of Dr. Blair Bell of England with reference to the effects of lead as a therapeutic agent in the treatment of cancer and those of Dr. W. E. Gey and J. E. Barnard, F. R. S., likewise of England, with respect to the immediate cause of cancer.

The facts with reference to Blair Bell's lead treatment of cancer are: That he is a well-known gynecologist of Liverpool—that being disappointed with the results accruing from the surgical and irradiation treatment of cancer, he undertook to further investigate the questions of the cause and treatment of cancer—that because of certain data previously accumulated which demonstrated the property possessed by weak solutions of lead salts and of colloidal lead to prevent the growth of vegetable and animal cells, he undertook to determine whether it is possible to employ solutions of lead in such percentages as would be sufficiently strong to inhibit the growth of malignant cells and to destroy those already existing without injuring the normal tissues—that he proceeded upon the theories that there is a great similarity in the metabolic factors concerned in the growth of all forms of cells, whether vegetable or animal, whether embryonic or mature, whether normal or malignant—that actively growing cells contain an amount of phosphates proportionate to the rate of growth—that the amount of phosphorous is necessarily considerably increased in malignant cells—that the greater the malignancy the greater the proportion of phosphorous—that lead reacts with the phosphates and inhibits the action of the enzymes—that he first undertook to administer the lead treatment to only subjects of advanced malignancies and as time went on he administered it to subjects of earlier lesions—that the advanced cases were treated by means of surgical removal followed by the intravenous administration of lead solutions and also by irradiation—that Dr. Bell made no claim that lead is a specific for cancer or that it would cure all cases, in fact, he suggested that other substances may be as efficient in retarding growth and at the same time be less toxic—that he did state, however, that in his belief the form of investigation and treatment is based upon truly scientific premises upon which further study of the cause and treatment of cancer may be made with expectation of fruitful results and that a number of cases which

were so advanced as to be totally unsuitable for any other form of treatment were materially benefited and a few equally advanced cases appeared to be well. (British Medical Journal, March 6, 1926.)

The facts with respect to Gey and Barnard's reports are that they worked with a special tumor which affects a certain species of chicken, with human sarcoma and with adeno-carcinoma of the human breasts—that by means of an improved microscope developed by Barnard they were able to reduce ultra-violet photographs of dark-ground visible images or structures of previously unobservable minuteness—that they were able to isolate two such structures or substances from the Rous Chicken Sarcoma, one of which they consider a filterable virus and which, when combined with the other substance, was capable of producing the same tumor in fowl of the same species—that Gey in summarizing the results of his researches stated:

"These researches have led me to look upon cancer—using the term in its widest sense—as a specific disease caused by a virus (or group of viruses). Under experimental conditions the virus alone is ineffective; a second specific factor, obtained from tumor extracts, ruptures the cell defenses and enables the virus to infect. Under natural conditions continued "irritation" of tissues sets up a state under which infection can occur. The connection between the specific factor of a tumor and an irritant remains to be investigated. Some of the relatively unimportant "irritants" are known, such as coal-tar, paraffin, oils, etc. The virus probably lives and multiplies in the cell and provokes the cell to continued multiplication. The methods of experiment now described, and the obvious extensions of them, give the means of classifying the viruses, of investigating the nature of the specific factor, and of testing suspected "irritants," such as preservatives in foods, which may play a role in the genesis of a tumor."

From the above statements and quotation it is seen that neither Gey nor Barnard claimed that these ultra-microscopic structures or substances were capable of producing all forms of malignancies or that they constitute the specific cause of cancer in human subjects.

The State Medical Society of Wisconsin made a distinct contribution toward graduate instruction in the early diagnosis and approved treatment of cancer by the distribution to its members of 2,100 copies of "Essential Facts About Cancer"—a handbook for the medical profession—at a cost of approximately $650.00. Some of the County Medical Societies working in cooperation with the Wisconsin State Board of Health and with the Local Health Department have, during the last eight years, made sporadic efforts to acquaint Lay Audiences with the early suggestive symptoms of cancer, as a result of which efforts a definite percentage of patients suffering from cancer have consulted their medical advisers earlier than those of the same degree of literacy had previously done. This response to educational efforts impells a continuance of the educational campaign. Your chairman has had under consideration different plans by which an intensive lay educational campaign may be undertaken with the expectation that it would be continued until the most illiterate shall have some understanding of the early symptoms of cancer. The plan most promising in the light of present information is one which would charge some organization or central committee possessing affiliations throughout the state with responsibility of correlating the talents and efforts of the medical and sociological professions and health officers and the joint outlining of a campaign which shall be so financed as to insure continuous efforts over a period of years. The organizations and the committee considered are: The Wisconsin Anti-Tuberculosis Association, a Wisconsin Society for the Study and Control of Cancer and The Committee on Cancer of the State Medical Society. Each of these possesses advantages and disadvantages which will readily occur to the members. The plan has been discussed with philanthropically inclined people who have manifested sufficient interest to make tentative promises to help supply some of the necessary funds provided the management of the funds were vested in legally constituted and continuing personnel, to the end that the plan and policy, under which the funds were made available, would be carried out. There are those who believe that since the lecturing to lay audiences would, in the main, be done by members of the medical profession, the directing of the work and the disbursing of the funds should be delegated to the Committee on Cancer of the State Medical Society or to the Committee on Health and Public Instruction of the State Medical Society. Some of those who have manifested an interest in supplying part of the funds desire that the funds be used exclusively for the purpose of attempting to reduce the mortality from cancer. Proceeding upon this reasoning they believe every effort should be made to emphasize the cancer problem instead of having it coupled up with other health problems. Unfortunately from the viewpoint of securing funds from a certain source, the committee on cancer is not a legally constituted committee of the State Medical Society, neither is it a continuing committee. The question naturally arises whether the delegates would care to consider making the committee on cancer a legally constituted committee and provide that its members be selected for a period of from three to five years instead of one year in order that the indicated desire of certain possible donors of funds may be complied with and thereby promote the launching of the educational campaign or what promises to be a permanent basis with the expectation that more funds will be forthcoming from lay people from time to time as they may be required. We suggest that regardless of what may be done by a central organization or committee each county medical society should have a committee on cancer which will actively promote the educational work to be done in its respective community.

In conclusion your chairman desires to improve this opportunity to thank the members of the last two Houses of Delegates, the Members of the Council and Secretary Crownhart for the appropriation granted and for the

kindly cooperation accorded the committee's feeble efforts, without which its accomplishments would have been nil.

Respectfully submitted,

J. P. McMahon, *Chairman.*

Dr. J. P. McMahon (Milwaukee): We have nothing to add to the report as printed in the Handbook.

President Smith: The question has been brought up as to whether or not this Committee should be continued as such or whether its activities might properly be included under the work of the Committee on Health and Public Instruction. Does anyone have any suggestion to make in regard to that?

Dr. G. Windesheim (Kenosha): It is my opinion that this Committee ought to be continued as such. I will make that as a motion.

The motion was seconded by Dr. Mauermann of Monroe.

Dr. J. P. McMahon (Milwaukee): In this connection I would call to your attention the fact that the Committee is really not a legally constituted Committee of the State Medical Society. It was conceived of during Dr. Bardeen's presidency and Dr. Bardeen took the responsibility of appointing a Committee, which Committee has continued ever since although it has not accomplished very much. It is my belief that some effort should be made by the several county medical societies to do something in the early diagnosis of cancer, to acquaint the laity with the early suggestive symptoms, and it is also my opinion that some effort should be put forth each year to make it possible for the general practitioners who see these cases first, to reach and define diagnoses much earlier than they are reached at the present time.

We have two things to do; to have symposia on cancer to impress upon the practitioners the nature of the early suggestive symptoms, impressing upon them that they cannot make a diagnosis without taking careful histories and making complete diagnoses, and continue the campaign of educating the laity.

When the Committee was first organized there was very little effort being made by anybody to educate the laity on the early symptoms of the disease other than that being done by the Anti-Tuberculosis Association. We all know what they have accomplished.

A rather new movement is that of the Periodic Health Examination which I think might give an opportunity to do a little more in bringing about the early diagnosis of cancer.

The question to which the President referred is probably prompted by a remark which is in the report. I feel that this Society, after two or three years' consideration, has made a very advanced step. Certainly it is for the benefit of the profession. I feel that we should continue to do something toward educating the laity. As it happens, there are some people who have had cancer in their families, who are fairly well-to-do, who have been sounded out on the suggestion or proposition of donating money to be used to educate the laity.

Some of them would not want to turn the funds over to the Committee as it is at present operating because it does not constitute a legal committee. One person would be inclined to make a reasonable contribution but would not do it unless he were sure the money was to be used for the education of the laity on the early symptoms of cancer. He would not want any of the funds diverted to tuberculosis or any other work. Mr. Crownhart and I have talked this over a few times. I don't know that he cares to be quoted at the present time. If he does care to make the remarks he made to me he can do so. But we do feel that the money could be had, but not the way the Committee is constituted at the present time. It is my suggestion that in view of the new constitution upon which we are about to pass, the House of Delegates authorize the appointment of a sub-committee of the Committee on Public Policy and Legislation, to be known as the Committee for Educating the Laity on Cancer. That would meet the objections that at present exist and would enable us to get some lay funds and after that, perhaps get some other funds. When it comes to the distribution of funds, if it is used to bring about an early diagnosis of heart disease and other things, it is agreeable with me.

Dr. J. W. Powers (Milwaukee): In view of what Dr. McMahon said I would move to amend the motion by asking that the report of the Committee be accepted, and the Committee be discharged inasmuch as it is a special Committee without standing, pending such further action as may be taken by the House of Delegates.

The amendment was seconded by Dr. Blumenthal of Milwaukee, and carried.

President Smith: The original motion was that the Committee be continued. In effect, this wipes out the original motion and there is no use of putting the original motion.

Next is the report of the Delegates to the American Medical Association by Dr. Horace M. Brown, Chairman.

REPORT OF THE DELEGATES OF THE STATE MEDICAL SOCIETY OF WISCONSIN TO THE AMERICAN MEDICAL ASSOCIATION

To the Members of the 1926 House of Delegates:

In a way it is to be regretted that the report of the activities of the House of Delegates of the American Medical Association should be derived from some one of the delegates from the State Society.

Delegates from a state society, if they take an active part in the work of the House of Delegates of the national organization, soon find themselves appointed by the Speaker of the House to an active participation in the work of the House, that occupies the greater part of their time in actual service on some one of the committees to which resolutions brought before the House for consideration are referred. The result being that the delegate thus honored has opportunity to come in touch with complete knowledge only with one part of the work accomplished by the House and his report may be but a detailing of the work of the reference committee to which he may have been assigned.

It is to be regretted that every member of a state medical society does not become a Fellow of the American Medical Association, thus becoming a recipient of the Journal and in that way have in his hand the complete report of the activities of the state delegates and the entire work of the House of Delegates, as well as have available an account of the activities of all the scientific sections.

The delegates from the State Medical Society of Wisconsin (Drs. Rock Sleyster, Wauwatosa; Joseph F. Smith, Wausau; and Horace M. Brown, Milwaukee) were all present and active in the work of the parent association. Dr. Sleyster, in his position as vice-speaker of the House of Delegates, was at the end of the session at Dallas, elected to membership on the Board of Trustees; a position which we may be assured he will ornament, as well as prove entirely competent to fill with great credit to himself as well as to the state of Wisconsin.

During the session, Dr. Gilbert E. Seaman of Milwaukee, representing the Veterans' Bureau, was granted the floor and delivered an address, placing before the House of Delegates a clear and concise statement of the present and contemplated activities of the Veterans' Bureau at Washington, of which organization he is at present the head.

The following resolutions are called to the attention of every physician in the state of Wisconsin in the hope that every physician may form opinions in accordance with that which the House of Delegates has given its sanction:

CONTRACT PRACTICE

Inasmuch as contract practice is absorbing an ever-increasing portion of general medical practice on account of rapid development and concentration in business and industry, and inasmuch as brokers under the guise of health, accident and sickness insurance in which they purport as middlemen to sell medical service to the laity are entering the field of medical practice, be it

RESOLVED, That: 1. The whole matter of contract practice be investigated under the direction of the Judicial Council.

2. The trend and dangers to patient and profession inherent in this movement be analyzed and clearly set forth.

3. Recommendations as to the policy of the American Medical Association toward contract practice, its functions, limitations and control be submitted to the House of Delegates for action at its annual session in 1927.

4. Systematic effort be made to get clearly before the constituent societies the results of this investigation and whatever action the House of Delegates may take in the matter.

UNIFORM LEGISLATION

WHEREAS, The strength of the medical profession in the field of legislation is lessened by lack of uniformity in policies and methods; and

WHEREAS, Such uniformity can be promoted and established only through cooperation among the several state associations whereby each will have the benefit of the knowledge and experience of all others; and

WHEREAS, Such cooperation can be best established through the Board of Trustees, acting through the Bureau of Legal Medicine and Legislation; be it

RESOLVED, That every state association be urged to cooperate to the fullest possible extent with the Board of Trustees in all matters of legislation, state and national; and be it further

RESOLVED, That the Board of Trustees be requested to extend to every state association all such assistance as may be possible in defining and carrying into effect its legislative policies, and in promoting uniformity in them.

TRAINED NURSES

RESOLVED, That there is a great need throughout the country for a basic trained nurse, and that all pupil or student nurses shall receive basic training in training schools connected with hospitals giving courses of two years. The curriculum should be thoroughly revised so as to provide bedside instruction, class room lectures and demonstrations and, above all, the teaching of the art of nursing by precept and example so as properly to fit the pupils or students for their work as nurses in the hospitals and in the homes.

Graduates, after passing the state examination, should be registered as trained or, if preferred, registered nurses. Such trained or registered nurses may become public health or other specially designated nurses after being properly admitted to post-graduate schools for nurses and passing the required examination.

RESOLVED, That the Board of Trustees appoint a committee on nurses and nursing education to investigate and report to the next House of Delegates the results of its investigation and constructive thought on the nursing question and especially on the subject of increasing the number of bedside nurses throughout the several states; the Committee on Nurses to be empowered to confer with the National Nurses' Association, hospitals and other committees having similar objects.

REPORT OF THE REFERENCE COMMITTEE ON LEGISLATION AND PUBLIC RELATIONS

Dr. H. M. Brown, Wisconsin, stated that the resolution of expert opinion evidence was referred back to the committee with an addendum for its consideration and for the introduction of new evidence. New evidence in the matter has been heard and carefully analyzed by your committee, and following will be the report of the committee as to the motion brought before the House at the first session. Dr. Brown read the resolution and a telegram from the professor of criminal law, University of Pennsylvania:

WHEREAS, The present court procedure in expert opinion evidence in both civil and criminal cases has in many instances brought public criticism and disgrace on both the legal and medical professions; and

WHEREAS, The present procedure in many cases is believed to defeat the administration of justice; and

WHEREAS, An effort is being made in many states by the bar associations and medical societies of those states to correct such maladministration of justice, and to relieve the legal and medical professions of the public criticism now received; and

WHEREAS, The American Bar Association is actively pursuing the above laudable effort; therefore, be it

RESOLVED, By the House of Delegates of the American Medical Association that it recognizes the urgent need for such remedial legislation and such change in court procedure as will correct the abuse of expert opinion evidence; approves the efforts of the various bar and medical associations; and further be it

RESOLVED, That the House of Delegates endorses the principle that in civic and criminal cases the court may appoint expert medical witnesses, who shall be paid out of public funds, and who may furnish a written report; and that the American Medical Association offers its co-

operation by such means as lie in its power to promote such legislation as will be mutually satisfactory to the medical and legal professions toward the correction of the present unsatisfactory procedure of presenting expert opinion evidence, and the Board of Trustees is hereby requested to use the facilities of this organization in such a way as to give effect to the sentiments expressed in this resolution.

And further, that the House of Delegates endorses certain principles approved by the Committee on Jurisprudence and Legal Reform of the American Bar Association, and by the American Institute of Criminal Law and Criminology as follows:

That in civil and criminal cases where the issue of insanity is raised, expert medical witnesses may be appointed by the court, and paid from public funds, and that such witnesses may present a written report.

Be it further

RESOLVED, That a copy of this resolution be sent to the American Bar Association.

Respectfully submitted,
HORACE M. BROWN,
Chairman.

TELEGRAM

Dr. J. Norman Henry, Dallas, Texas.

Testimony bill approved by Committee on Jurisprudence and Law Reform of American Bar Association, 1915, by American Institute of Criminal Law and Criminology, 1914, by eleventh annual conference of American Medical Association on Medical Legislation called by Council on Health and Public Instruction, Chicago, Feb. 15, 1915. These approvals verified.

E. R. KEEDY, Philadelphia.
Professor of criminal law, University of Pennsylvania; chairman of committee which drafted those principles.

Dr. Brown moved the adoption of the resolution. The motion was seconded by Dr. Arthur J. Bedell, New York, and carried.

ADDENDA TO REPORT OF REFERENCE COMMITTEE ON LEGISLATION AND PUBLIC RELATIONS

A Bill to Regulate Expert Testimony

The American Institute of Criminal Law and Criminology at its meetings in Washington, D. C., on October 22, 1914, unanimously approved the following bill, which was presented by the committee on insanity and criminal responsibility:[1]

SECTION 1.—**Summoning of Witnesses by Court.** Where the existence of mental disease or derangement on the part of any person becomes an issue in the trial of a case, the judge of the trial court may summon one or more disinterested qualified experts, not exceeding three, to testify at the trial. In case the judge shall issue the summons before the trial is begun, he shall notify counsel for both parties of the witnesses so summoned. Upon the trial of the case, the witnesses summoned by the court may be cross-examined by counsel for both parties in the case. Such summoning of witnesses by the court shall not preclude either party from using other expert witnesses at the trial.

SECTION 2.—**Examination of Accused by State's Witness.** In criminal cases, no testimony regarding the mental condition of the accused shall be received from witnesses summoned by the accused until the expert witnesses summoned by the prosecution have been given an opportunity to examine the accused.

SECTION 3.—**Commitment to House for Observation.** Whenever in the trial of a criminal case the existence of mental disease on the part of the accused, either at the time of the trial or at the time of the commission of the alleged wrongful act, becomes an issue in the case, the judge of the court before which the accused is to be tried or is being tried shall commit the accused to the State Hospital for the Insane, to be detained there for purposes of observation until further order of court. The court shall direct the superintendent of the hospital to permit all the expert witnesses summoned in the case to have free access to the accused for purposes of observation. The court may also direct the chief physician of the hospital to prepare a report regarding the mental condition of the accused. This report may be introduced in evidence at the trial under the oath of said chief physician, who may be cross-examined regarding the report by counsel for both sides.

SECTION 4.—**Written Report by Witness.** Each expert witness may prepare a written report upon the mental condition of the person in question, and such report may be read by the witness at the trial. If the witness presenting the report was called by one of the opposing parties, he may be cross-examined regarding his report by counsel for the other party. If the witness was summoned by the court, he may be cross-examined regarding his report by counsel for both parties.

SECTION 5.—**Consultation of Witnesses.** Where expert witnesses have examined the person whose mental condition is an element in the case, they may consult before testifying, with or without the direction of the court, and may prepare a joint report to be introduced at the trial.

Dr. Brown begged the privilege of presenting the copy of the article referred to in the report.

The Speaker stated that it would be attached as addenda to the complete report.

Dr. Brown read a resolution referring to H. R. 10125, a bill in Congress endeavoring to bring about the same general class of changes.

RESOLVED, That the House of Delegates of the American Medical Association endorse the principles embodied in H. R. 10125, a bill to provide for the coordination of the public health activities of the government and for the other purposes.

On motion by Dr. Brown, seconded by Dr. Arthur J. Bedell, New York, the resolution was adopted.

Dr. Brown moved the adoption of the report as a whole. The motion was seconded and carried.

Respectfully submitted,
H. M. BROWN,
For the Delegates.

DR. HORACE M. BROWN (Milwaukee): Mr. President, and Gentlemen: You all have the Handbook, I think, and probably have read most of the things in it and no doubt have read the report of the Delegates from the Medical Society of Wisconsin to the American Medical Association. It gives me very great pleasure indeed to stand here before this House of Delegates of the State Society and congratulate you, in two-thirds, upon the men that you have sent to the meetings of the American Medical Association to represent you here; Dr. Smith is one of the thirds and Dr. Rock Sleyster the other third. Since we have been together in the House, which is a matter of three or four years, the Society has been honored by the men representing the State having been

[1]The membership of the committee is as follows: Edwin R. Keedy (professor of law in Northwestern University), Chairman. Adolf Meyer (professor of psychiatry in Johns Hopkins University), Baltimore. Harold N. Moyer (physician), Chicago. W. A. White (superintendent Government Hospital for the Insane), Washington. William E. Mikell (dean of the Law School of the University of Pennsylvania), Philadelphia. Albert C. Barnes (judge of the Superior Court), Chicago. Morton Prince (physician), Boston.

given important places on Reference Committees and having been entrusted with very important work in the House of Delegates of the American Medical Association. Do you want me to read this report that is in the Handbook and make explanations as I go along?

I would say that your Delegates to the House of Delegates of the American Medical Association have been very harmonious and very fortunate in their contacts with each other and have all been advanced from the position of a simple hearer and "Yea" man, to say "Yes" or "No" as the case might be, to positions of importance and prominence in the activities of the American Medical Association.

President Smith: This report will be referred to the Committee on Reports of Officers which consists of Dr. A. W. Rogers, Dr. G. D. Beech, and Dr. T. W. Nuzum. If the Committee has any recommendations to make on this report, you will be expected to make your report tomorrow evening at the meeting of the House of Delegates at that time.

Secretary Crownhart: Before we proceed further with the order of business of this House, I note that we have one present tonight who I presume knows every member in this room, and I want every member in this room to know he is present. I should like to present at this time, Dr. Charles Sheldon, Secretary Emeritus of your State Medical Society.

The House arose and applauded.

Dr. Charles Sheldon: Mr. President, Mr. Secretary, fellow laborers, to resurrect from the vast depths the only living specimen of an extinct species like this is magnanimous. For all that, I assure you that it is a great joy to meet you again after these many years. I am not going to take up the time of this Society because you have important business. My wife always says to me, "Charley, if anybody happens to ask you to make a speech, don't make a great long speech and tire them all out, make it short and interesting, and if you can't make it interesting, make it short anyway."

I will go back to the time in the eighties when I used to box up a number of the annual reports and all my Secretary's apparatus in a wooden box, and at one convention I lost it. It reminds me that those were the times of small doings compared with what I see before me today.

It is quite different now from what it was then. I can see progress in a great many ways. Providence, fortune or something, has been very kind to me in many things. I love the medical profession, and I love the medical organization of Wisconsin, and those men that I worked with all those years have an abiding presence in my heart, an affection which I shall always feel for them as long as I live. When I meet them as I do now, it seems as if I were renewing the joys of my childhood—which seems so long ago. I greet you all and wish you all success, not only in the Society but every one of you individually, and may God bless you all. Thank you. (Applause.)

President Smith: The next order of business is the report of the Chairman of the Council, Dr. Edward Evans.

REPORT OF CHAIRMAN OF THE COUNCIL

To the Members of the 1926 House of Delegates:

During the past month the Secretary of our Society received a letter from a Secretary of another State Society asking the duties, functions and work of the Council in Wisconsin. The writer explained that they were desirous of making their Council a working body and that the General Manager of the American Medical Association had referred him to Wisconsin for advice.

No greater compliment could be paid to those who have accepted the duties the office of Councilor entails and who have worked so hard and faithfully to discharge their obligations.

The office of Councilor in your Society has become, in recent years, a working office. In a broad sense the House of Delegates determines the policies of our Society. Necessarily the House may not stay in session to supervise the application of such policies and so it is that this important work falls upon the smaller body who may be called in session with comparative ease, or who may be reached within a matter of hours for "long distance" advice.

The work of the Society is the work of the Council. It is far from being completed at the end of an all day session each January. It is not completed at the end of interim sessions. Each Councilor is charged with the duty of visiting once a year, if possible, the component societies in his district. Each Councilor is called upon to contribute to the editorial columns of our Journal. He must necessarily be the directing force behind the annual councilor district meeting which is proving to be so successful. He must keep abreast with the opinions of the members in his district that he may truly represent such group opinion on the many questions which are referred for advice from the Executive Office. He must endeavor to foresee the needs of the membership he seeks to serve that he may urge upon the Council, as a whole, the necessity for present action to meet future demands.

As Chairman of your present Council I feel that my report will be most valuable if it brings to your attention the steadily growing importance of the office of Councilor. Delegates, now and in the future, hold in their hands the power to determine who shall represent their respective districts. I do not believe it out of place to say that this responsibility of the Delegates is as serious as any they accept.

Since 1900 our Society has progressed by leaps and bounds. We have enormously increased the scope of our work and the benefits to the membership. In a working group questions constantly arise which need the advice of representative members from all sections of the state. Our progress will demand more and more from your Councilors. No matter whom you may elect or how, the office will continue to demand an increasing sacrifice of time, an increasing devotion to true service, and above all else, the confidence and helpful criticism

of the membership at large whom your Councilor seeks to represent; wishes to serve.

Respectfully submitted,

EDWARD EVANS, *Chairman.*

DR. EDWARD EVANS (La Crosse): The first paragraph of the report is very flattering to the profession of Wisconsin, inasmuch as the Secretary of one of our State Societies writing to the American Medical Association for information as to how to make his society better, was referred to the Society of Wisconsin as an example of a society working harmoniously and strongly.

The second thing I want to draw your attention to is the sentence, "As Chairman of your present Council I feel that my report will be most valuable if it brings to your attention the steadily growing importance of the office of Councilor."

Inasmuch as my term of office expires at this meeting, I feel free to say that the Council for the last several years has been a marvelous body. They have been out to every meeting one hundred per cent, but that is not the most important part of the work. They have been working throughout the year in their districts, and this year records the most splendid showing the Society of Wisconsin has ever made, inasmuch as every district has held or is going to hold a district meeting, and the Secretary reports them all as very well done.

As one who has been working with this Society for about a third of a century, I should like tonight to appeal to the House of Delegates when you come to elect Councilors (and probably there will be several to elect tonight) not to do it off-hand, don't jump up and nominate your friends, please take into consideration the character of man you are going to put at the head of your district and see that you get a good Councilor.

PRESIDENT SMITH: At this time I wish to announce the personnel of the Committee on Resolutions:

Dr. W. J. Egan, Milwaukee, Chairman,
Dr. W. E. Bannen, La Crosse, and
Dr. G. W. Nott, Racine.

SECRETARY CROWNHART: At the meeting of the Council this afternoon, the Council approved a proposed resolution on the subject of periodic examinations of apparently healthy persons. This resolution is now before you and the President has referred it automatically to the Committee on Resolutions who will report it back tomorrow evening.

PRESIDENT SMITH: The next order of business is the report of the Treasurer, Dr. Rock Sleyster.

REPORT OF THE TREASURER

To the Members of the 1926 House of Delegates:

The following is the Treasurer's Report as of July 31, 1926.

RECEIPTS

1925		General Fund	Medical Defense Fund	Balance
Aug. 1	Balance Cash in Bank	$ 5,405.49	$ 4,568.66	
Sept. 1	J. G. Crownhart, Secretary	213.00	14.00	
Sept. 1	J. G. Crownhart, Secretary, Exhibit Space	126.25		
Oct. 1	J. G. Crownhart, Secretary, Exhibit Space	1,299.00		
Oct. 1	J. G. Crownhart, Secretary	618.00	68.00	
Oct. 1	Interest Earned, Treasury Certificates	249.36		
Oct. 20	Interest Earned, Bank Certificates	142.88		
Oct. 20	J. G. Crownhart, Exhibit Space	195.00		
Nov 6	J. G. Crownhart	158.44		
Nov. 12	J. G. Crownhart. Exhibit Space	150.00		
Dec. 1	J. G. Crownhart	46.50		
Dec. 1	J. G. Crownhart	17.62		
Dec. 31	J. G. Crownhart	197.25	42.00	
1926				
Jan. 1	J. G. Crownhart, Secretary	1,200.00		
Jan. 20	J. G. Crownhart, Secretary	1,500.00		
Feb. 1	Frank S. Betz Company	100.00		
Feb. 1	J. G. Crownhart, Secretary	1,071.00	446.00	
Feb. 26	J. G. Crownhart, Secretary	5,247.00	710.00	
March 11	J. G. Crownhart, Secretary	187.50		
March 11	C. V. Mosby Company	52.50		
March 11	Hanovia Chemical Company	42.50		
March 11	Frank S. Betz Company	25.00		
March 18	Horlick's Malted Milk Company	40.00		
March 18	Victor X-Ray Corporation	37.50		
March 31	J. G. Crownhart, Secretary	3,969.00	568.00	
April 27	Cameron Surgical Specialty Company	37.50		
May 1	J. G. Crownhart, Secretary	2,295.00	174.00	
May 29	J. G. Crownhart, Secretary	1,562.00	190.00	
July 2	J. G. Crownhart, Secretary	735.00	80.00	
		$26,920.29	$ 6,860.66	$33,780.95

DISBURSEMENTS

1925			
Aug.	25—Dr. J. M. Dodd	$ 30.00	
Aug.	25—Astrid Jurgens	95.00	
Sept.	1—Wisconsin Medical Journal	54.00	
Sept.	1—J. G. Crownhart, Secretary	146.56	
Sept.	1—J. G. Crownhart, Salary	316.66	
Sept.	1—Cannon Printing Company	34.44	
Sept.	3—Wisconsin Telephone Company	10.67	
Sept.	3—Kresge Five-and-Ten Cent Store	13.30	
Sept.	3—Kowalsky Hardware Company	65.90	
Sept.	3—Engeln Electric Company	7.50	
Sept.	14—Milwaukee Auditorium Board	260.00	
Sept.	14—Cannon Printing Company	241.00	
Sept.	14—Julius Huebner	24.30	
Sept.	14—J. H. May	25.00	
Sept.	14—Whitehead & Hoag Company	164.00	
Sept.	18—Milwaukee Auditorium Board	867.60	
Sept.	18—Manette Hopkinson	20.00	
Sept.	19—American Medical Films	100.00	
Sept.	19—Aultman Sign Company	9.00	
Sept.	19—Cannon Printing Company	217.69	
Sept.	19—Pittsburgh Plate Glass Company	50.00	
Sept.	19—Siekert & Baum Stationery Company	3.10	
Sept.	24—Hotel Pfister	660.05	
Sept.	24—J. G. Crownhart	100.00	
Sept.	24—Dr. C. W. Geyer	12.75	
Sept.	24—Boggis-Johnson Electric Company	26.49	
Sept.	24—Wisconsin Anti-Tuberculosis Association	45.00	
Sept.	30—J. G. Crownhart, Salary	316.66	
Oct.	1—Wisconsin Medical Journal	114.00	
Oct.	1—Astrid Jurgens	105.00	
Oct.	1—Dr. F. C. Warnshuis	29.45	
Oct.	1—Dr. M. L. Harris	10.50	
Oct.	1—Dr. H. N. Beets	14.00	
Oct.	1—Dr. G. O. Brown	35.94	
Oct.	1—Dr. J. L. Yates	119.44	
Oct.	1—John E. Krines	67.50	
Oct.	1—Cannon Printing Company	35.20	
Oct.	1—J. G. Crownhart, Secretary	152.50	
Oct.	2—A. G. Spaulding Bros. Company	25.00	
Oct.	2—Wisconsin Telephone Company	15.94	
Oct.	2—Louis Esser	59.00	
Oct.	2—Alsted Kasten Company	25.00	
Oct.	5—Postmaster, Milwaukee	40.00	
Oct.	20—First Wisconsin National Bank, Securities	1,500.00	
Oct.	20—Western Union Telegraph Company	11.64	
Oct.	20—Master Reporting Company	291.21	
Oct.	30—First Wisconsin National Bank, Securities	1,000.00	
Nov.	3—William C. Kreul Company	35.15	
Nov.	6—J. G. Crownhart, Salary	316.66	
Nov.	6—Astrid Jurgens	105.00	
Nov.	6—Wisconsin Medical Journal	20.00	
Nov.	6—Dr. J. P. McMahon	197.42	
Nov.	6—Wisconsin Telephone Company	14.33	
Nov.	6—Cannon Printing Company	10.00	
Nov.	6—J. G. Crownhart, Secretary	224.43	
Nov.	10—Cannon Printing Company	54.00	
Nov.	30—Dr. Joseph Smith	17.78	
Nov.	30—J. G. Crownhart, Secretary	246.31	
Nov.	30—J. G. Crownhart, Salary	316.66	
Dec.	1—Astrid Jurgens	105.00	
Dec.	8—Wisconsin Medical Journal	12.00	
Dec.	16—Wisconsin Telephone Company	17.18	
Dec.	22—Astrid Jurgens	105.00	
Nov.	30—Lines, Spooner & Quarles		$ 2,742.73
Dec.	31—J. G. Crownhart, Secretary	300.00	
Dec.	31—J. G. Crownhart, Salary	316.66	
1926			
Jan.	9—Cannon Printing Company	317.75	
Jan.	9—Hooven Typewritten Letters	72.64	
Jan.	9—Wisconsin Telephone Company	16.21	
Jan.	9—Siekert & Baum Stationery Company	18.45	
Jan.	9—American Society for Cancer	223.00	

Jan.	14—American Medical Association	417.00	
Jan.	18—American Medical Association	92.00	
Jan.	21—Wisconsin Medical Journal	800.00	
Jan.	26—Cannon Printing Company	124.00	
Jan.	26—Dr. W. D. Stovall	11.00	
Jan.	27—Gasser-Fox Agency	12.50	
Jan.	27—Fred L. Holmes	152.50	
Jan.	28—Dr. Hugh Greeley	9.81	
Jan.	28—Cannon Printing Company	82.66	
Feb.	1—Wisconsin Medical Journal	520.00	
Feb.	1—J. G. Crownhart, Secretary	220.61	
Feb.	1—J. G. Crownhart, Salary	366.66	
Feb.	1—Astrid Jurgens	110.00	
Feb.	1—Dr. C. A. Harper	9.08	
Feb.	6—Wisconsin Telephone Company	17.86	
Feb.	6—Dr. J. Gurney Taylor	7.83	
Feb.	12—Cannon Printing Company	65.50	
Feb.	26—Cannon Printing Company	83.00	
Feb.	26—Hooven Typewritten Letters	9.96	
Feb.	26—Wisconsin Medical Journal	728.75	
Feb.	26—Hotel Loraine	19.20	
Feb.	26—J. G. Crownhart, Secretary	256.55	
Feb.	26—J. G. Crownhart, Salary	366.66	
Feb.	26—Astrid Jurgens	110.00	
Feb.	27—Fred Holmes	150.00	
Feb.	27—Wisconsin Anti-Tuberculosis Association	126.95	
March	4—Shinners Bros.	12.50	
March	10—Wisconsin Telephone Company	28.50	
March	10—Dr. Louis Jermain	8.00	
March	10—American Medical Association	6.00	
March	11—L. C. Smith & Bros. Company	14.00	
March	18—Wisconsin Medical Journal	37.45	
March	25—Cannon Printing Company	27.00	
March	25—Drs. Sattre & Dawson	30.00	
March	25—P. J. Savage	48.00	
March	31—Fred Holmes	150.00	
March	31—J. G. Crownhart, Secretary	154.14	
March	31—J. G. Crownhart, Salary	366.66	
March	31—Florence Ripley	94.00	
March	31—Astrid Jurgens	110.00	
March	31—Lines, Spooner & Quarles		708.30
April	2—J. G. Crownhart, Secretary	551.25	
April	7—Wisconsin Telephone Company	14.17	
April	7—Federal Realty Company	48.00	
April	7—Dr. H. M. Stang	11.00	
April	16—Hooven Typewritten Letters	8.31	
April	16—Dr. Hoyt Dearholt	4.28	
May	1—Dr. Rock Sleyster	3.50	
May	1—Fred L. Holmes	150.00	
May	1—The Milwaukee Electric Railway & Light Company	1.42	
May	1—Sickert & Baum Stationery Company	8.45	
May	1—Cannon Printing Company	36.25	
May	1—Dr. Joseph Smith	92.46	
May	1—Wisconsin Medical Journal	318.75	
May	1—J. G. Crownhart, Secretary	189.99	
May	1—J. G. Crownhart, Secretary	70.65	
May	1—J. G. Crownhart, Salary	366.66	
May	1—Florence Ripley	117.50	
May	1—Astrid Jurgens	110.00	
May	1—Dr. Rock Sleyster	75.48	
May	13—P. J. Savage	48.00	
May	13—Dr. H. M. Brown	75.48	
May	13—John C. Becker Company	402.21	
May	13—Wisconsin Telephone Company	18.27	
May	27—Cannon Printing Company	40.50	
May	27—Wisconsin Anti-Tuberculosis Association	300.00	
May	27—The Milwaukee Electric Railway & Light Company	.95	
May	27—Fred L. Holmes	150.00	
May	27—J. G. Crownhart, Secretary	147.72	
May	27—J. G. Crownhart, Salary	366.66	
May	27—Florence Ripley	94.00	
May	27—Astrid Jurgens	110.00	
May	27—P. J. Savage	48.00	
June	11—Wisconsin Medical Journal	217.50	
June	11—Wisconsin Telephone Company	13.18	
June	11—Cannon Printing Company	136.25	
June	11—Sickert & Baum Stationery Company	14.20	

June 25—Cannon Printing Company	220.00		
June 25—Crandall & Thielke	20.00		
July 2—Fred L. Holmes	150.00		
July 2—Wisconsin Medical Journal	102.50		
July 2—J. G. Crownhart	366.66		
July 2—Florence Ripley	94.00		
July 2—Astrid Jurgens	110.00		
July 2—J. G. Crownhart, Secretary	213.58		
July 3—Wisconsin Telephone Company	8.64		
July 17—First Wisconsin Company	23.86		
July 19—Medical Arts Building	48.00		
July 19—The Milwaukee Electric Railway & Light Company	.95		
July 24—Milwaukee County Radiological Society	15.00		
July 24—Cannon Printing Company	21.50		
Total Disbursements	$22,291.68	$ 3,451.03	$25,742.71
Bank Balance July 31, 1926			$ 8,038.24

SUMMARY

Covering period from August 1, 1925, to July 31, 1926.

GENERAL FUND		
Balance August 1, 1925	$ 5,405.49	
Total Receipts	21,514.80	
	$26,920.29	
Disbursements	22,291.68	
BALANCE		$ 4,628.61
MEDICAL DEFENSE FUND		
Balance August 1, 1925	$ 4,568.66	
Total Receipts	2,292.00	
	$ 6,860.66	
Disbursements	3,451.03	
BALANCE		3,409.63
Total Funds as per Bank Balance		$ 8,038.24

SUMMARY OF FINANCES AS OF JULY 31, 1926.

General Fund	$ 4,628.61
Medical Defense Fund	3,409.63*
Securities, as per attached list	18,000.00
Petty Cash in hand of Secretary	300.00
TOTAL	$ 26,338.24

*Against this balance there are bills outstanding, just received, amounting to $2,086.55.

INVESTMENT SECURITIES

BOND	Due	Rate	Amount
Northern States Power Company	1941	5	$ 500.00
Northern States Power Company	1941	5	$ 500.00
Northern States Power Company	1941	5	$ 500.00
Northern States Power Company	1941	5	$ 500.00
Northern States Power Company	1941	5	$ 500.00
Northern States Power Company	1941	5	$ 500.00
Northern States Power Company	1941	5	$ 500.00
Northern States Power Company	1941	5	$ 500.00
The Milwaukee Electric Railway & Light Company	1931	4½	2,000.00
The Milwaukee Electric Railway & Light Company	1931	4½	2,000.00
American Telephone & Telegraph Company	1936	4	4,000.00
Wisconsin Traction, Light, Heat & Power Company	1931	5	1,000.00
Wisconsin Traction, Light, Heat & Power Company	1931	5	1,000.00
Wisconsin Traction, Light, Heat & Power Company	1931	5	1,000.00
Wisconsin Public Service Company	1942	5	3,000.00
			$18,000.00

Respectfully submitted,
ROCK SLEYSTER,
Treasurer.

SECRETARY CROWNHART: The report is printed in the Handbook and stands as printed.

PRESIDENT SMITH: This report will be referred to the Committee on Reports of Officers.

The next is the report of the Executive Secretary, Mr. J. G. Crownhart.

REPORT OF EXECUTIVE SECRETARY-MANAGING EDITOR

To the Members of the 1926 House of Delegates:

That the report of your full-time executive officer may be concise, it is divided into the several main fields of endeavor of the Society.

COMPONENT SOCIETIES

The membership of the State Medical Society, and thus of the component societies, is the largest in its history. The total as of August fifteenth was 1993 as compared with 1908 on September first a year ago. Some 86 members were still delinquent on August fifteenth indicating that the membership for the year will surpass the 2,000 mark.

Since the last meeting your Secretary has visited fifteen county societies, seven district societies, official boards, three non-affiliated societies and several lay meetings. County societies visited were: Ashland-Bayfield-Iron; Barron-Polk-Washburn-Sawyer-Burnett; Brown-Kewaunee; Clark; Dane; Eau Claire and Associated; Kenosha; Milwaukee; Racine; Rusk; Sauk; Sheboygan; Trempealeau-Jackson-Buffalo; Walworth and Washington-Ozaukee. District meetings attended were in the first, third, fourth, fifth, sixth, seventh, eighth and ninth districts.

From personal observations and communications it is believed the component societies are presenting programs in greater number than in previous years. Probably the majority of the fifty-one component county societies are faced with handicaps either as to size of membership or comparative inaccessibility so far as securing program material is concerned. The officers of the State Society recognize these handicaps and have made, and will continue to make, every effort to the end that each component society may secure a reasonable amount of program material from without its boundaries. It is to be noted, however, that many so-called handicaps have been overcome in individual instances through the untiring efforts of individual officers.

For the first time, this year will see a district meeting in each of the twelve councilor districts. The attendance to date has been most excellent and your Secretary feels that this work has been indeed an accomplishment, and that its continuance will be of ever increasing value to the membership as a whole.

THE JOURNAL

During the past year your Wisconsin Medical Journal has steadily increased in size and it is hoped, in value. The Editorial Board has had several meetings at which Journal policies and means of improvement have been discussed at length.

Financially the Journal continues to show improvement. Through increased advertising and a long deferred increase in rates, the income for the first eight months of 1926 was so improved as to show a total loss of but $1,150 or $144 a month. During the same period the Journal has purchased an Addressograph and made other capital purchases totaling over $250. It appears that for 1927 the general budget of the Society will only be called upon for $1,200 as compared with slightly over $2,500 in 1926 and $5,000 three years ago. This is in face of an almost doubled size and a materially increased circulation.

SERVICE TO THE MEMBERS

During the first seven months of 1926 upwards of 30,000 pieces of mail were handled through the Secretary's office not including the Journal or individual correspondence. Personal letters averaged upwards of 400 a month or close to 3,000 in the same period. With a stenographic force of but two, it will be understood that the general office has been pushed to its limit in handling the business of the Society. The correspondence is mentioned because of the fact that literally hundreds of personal requests for service have been handled in this manner.

In a general way each member, through the cooperation of the State Board of Health, has received a copy of The Manual of Suggestions for the Conduct of Periodic Examinations of the Apparently Healthy Person as published by the American Medical Association, and A Handbook for the Medical Profession on Cancer as published by the American Society for the Control of Cancer. Upwards of a hundred requests for library material consisting of books and current literature have been filled through the University of Wisconsin, the Milwaukee Academy of Medicine, the American Medical Association and other sources.

On an average of once every three weeks your Secretary has visited the State Capitol and has maintained a close personal contact with those public officials whose work is connected in any way with the fields of endeavor allied to the practice of medicine. This contact proves increasingly valuable in that it affords the Society the opportunity to express its views on contemplated official actions and thus to aid, to some extent, in the formulation of sound policies from a scientific and practical viewpoint. Such work as this is truly constructive and at once benefits both the public and the profession.

In the December, 1925, issue of the Journal your Secretary published a complete and accurate compilation of laws and rulings, both state and federal, affecting physicians in their professional life. That this has been of value to the members has been many times evidenced since its publication.

Cooperative efforts of your state society with other component societies of the American Medical Association resulted in Congress reducing the tax on narcotic per-

mits from $3 to $1 effective at once. This saving of $2 a year affects practically every member.

LAY EDUCATION

All lay educational efforts are handled through the executive office of the Society. During the past year we have added to our Hygeia presentation list all District Attorneys in the state and look forward to the opportunity when we may also add the county and state judiciary. Each year the recipient of Hygeia receives a personal letter of presentation in which the general purpose of the Society's efforts are set forth. Your Secretary is convinced that this expenditure is being made to excellent advantage.

The Third Annual Lay Issue of our Journal was published last January. In the future, should its continuance be authorized, the Lay Issue will appear as a supplement to the January Journal. Of the last issue, some 9,000 copies were distributed throughout the state.

The Press Service and other lay educational activities are discussed in the report of your Committee on Public Policy and Legislation. Your Secretary heartily concurs in the recommendations of that Committee.

Your Executive Officer takes this opportunity, however, publicly to commend the daily and weekly press of the state for the splendid cooperation they have given this Society in the effort to take to the people of Wisconsin the information to which they are entitled in the field of individual and community health. The weekly press service inaugurated by this Society last January has been a tremendous undertaking in the interest of public health. The information has been contributed by our members from every section of the state. An appropriation was made to the end that the profession might present this information to the public press.

All this would have proved fruitless had not the press of Wisconsin, including every daily paper and upwards of one hundred and sixty weekly papers, recognized the opportunity for a public service to their readers in accepting and regularly publishing this informational material.

The press of Wisconsin has been interested in many fields of public service during this and past years. But in their hearty cooperation in this endeavor your Secretary believes that they have rendered a service to their readers that finds its equal in but one other state and is excelled in none.

ADMINISTRATIVE

During the year your Secretary has cooperated with the several committees of the Society and it may be of interest to note that over twenty-five such committee sessions, lasting from one to several hours, have been held. The reports of these committees will be submitted separately to this House.

It has been pointed out by President Smith that the total funds available for all operations of the Society are approximately $18,000 a year. Of this total, during 1926, close to $10,000 was expended in salaries, rent, supplies and travel expenses. Under the heading of lay educational activities close to $500 was expended for Hygeia, $800 for the lay issue and $2,200 for the press service, totaling $3,500. Slightly over $2,500 was turned over to the Wisconsin Medical Journal and of the balance, $500 was devoted to the Committee on Cancer, $300 as a partial payment for the subscriptions to the Crusader, $500 to cover expenses for the delegates and Secretary to the American Medical Association, $500 for this annual meeting and $350 for miscellaneous officers' expense. An additional expenditure of $400 was necessary to furnish the new offices of the Society.

For 1927 some of these expenses are reduced and others may be eliminated, but the fact that the legislature will be in session necessitates an appropriation for representation before that body. This appropriation, while comparatively small in amount, more than exceeds the economies which will be made possible. Your secretary points out, however, that with the interest from the reserve and an income of $9.00 (the present dues) from 2,000 members, the present program will be carried on but no material extension will be possible.

RECOMMENDATIONS

1. At the present time the Society pays merely the railroad fare of its delegates to the annual meeting of the American Medical Association. The work of your delegates is such that they rarely have the opportunity to attend any scientific session of the meeting. Your Secretary firmly believes that at this time the Society should authorize not only the payment of railroad and pullman fares but all necessary expenses, leaving the definition of the word "necessary" to the good judgment of the delegates whom you select. Such action will not materially increase the cost to the Society but, on the other hand, will in some small measure indicate the appreciation of the Society for the faithful and exceptional work of its representatives.

2. The problems of the profession in Wisconsin are not materially different from the problems of the profession in our neighboring state societies of Minnesota, Michigan, Iowa and Illinois. Your Secretary suggests that much useful information might be obtained were this Society annually to elect official representatives to attend the annual sessions of the four societies mentioned. Such representatives should be reimbursed for their railroad fare and hotel expenses.

3. The work of the component county medical societies is often inspired and necessarily depends upon the several secretaries. During the period when Dr. Sleyster was Secretary of this Society his "ginger teas" for the secretaries at the time of the annual meeting were widely known. An attempt has been made to approximate their success by a luncheon meeting for all officers during the annual session. It is evident, however, that time for an adequate discussion of the problems and work of the officers of the county societies is too limited when such a meeting is attempted in connection with the annual session.

Your Secretary suggests that the House of Delegates authorize the Council to take the following action at

such time as the necessary funds are available: That a secretaries' conference be held as an all-day session on the day preceding the annual meeting of the Council in Milwaukee in January of each year. Further, that attendance at such a conference may not be too much of a hardship on the several secretaries, that one-half their expenses be paid from the general funds of the Society. Your Secretary estimates that the sum of $650 would cover the necessary program and expenses involved.

4. Your Secretary has noted that from no other source is such a demand made upon his office for information as from those physicians who just enter upon their professional career. These men are unacquainted, apparently, with the practical application of the principles of ethics of the American Medical Association, with the laws and health rulings of the state, with legal aspects of their work, and with knowledge concerning society organization and methods of application. It is suggested that the House of Delegates authorize the Council to appoint a special committee to discuss this subject with the deans of the two medical schools and, if thought advisable, to offer the services of the Society in providing each school with at least three lectures on such fundamental subjects to be delivered to senior medical students each year.

5. In the field of lay education the work in Wisconsin is outstanding. The members of the Society have not only given liberally of their time and knowledge, but have been willing to finance this field of public health endeavor as well. It seems to your Secretary that it might be possible, and certainly proper, to obtain financial support for this effort in the interest of public health from sources outside the profession. This question is hardly one that should be determined on the spur of the moment and your Secretary suggests that the House authorize the appointment of a special committee to consider this subject and to report to the 1927 meeting of the House.

6. No effort has been made to present anything but major recommendations. Your Secretary continues to work on the subject of library material, an annual reference book for the profession containing laws and abstracts pertaining to the profession, lay meetings, periodic health examinations, additional services to the members and the general field of lay educational and legislative work. At times the work seems to progress but slowly, but during the past three years no step has been taken from which it was later necessary and essential to recede.

CONCLUSION

Too much emphasis may not be placed upon the fact that the efforts of the Society have not been successful solely through the work of the executive office. The work of that office is most valuable when it points out to the members what needs to be done locally rather than attempting the impossible, to do it alone. In other words, the Society succeeds just as the membership as a whole is alive to the work it is attempting and each accomplishes locally what is possible in the interest of the state program.

Your Secretary has received a degree of cooperation that far exceeds the best that might be anticipated. To this cooperation from the officers, the committeemen and the members, does the group owe thanks for such success as may have been attained. The continuance of such cooperation during 1927, a legislative year, and succeeding years, will insure the success of the future programs in the joint and inseparable interest of the public and profession together.

Respectfully submitted,

(Mr.) J. G. Crownhart.

MEMBERSHIP REPORT

County Society Dec. 1, 1926.

	Last Year	This Year	Loss — Gain +	Delinquent	Deceased	Removed	Honorary	New Members
1st District—								
Dodge	25	31	+6	1	..	..	7	..
Jefferson	32	33	+1	..	1	..	2	..
Waukesha	52	51	—1	..	3	3	5	..
Totals	109	115	+6	1	4	3	14	..
2nd District—								
Kenosha	40	43	+3	..	1	..	4	..
Racine	49	46	—3	2	3	..	2	..
Walworth	21	26	+5	..	..	..	5	..
Totals	110	115	+5	2	4	..	11	..
3rd District—								
Dane	133	135	+2	5	..	5	12	4
Columbia	25	25	....	1	1	1	3	..
Green	15	17	+2	..	..	1	3	..
Rock	79	77	—2	2	2	..	3	1
Sauk	22	25	+3	2	..	..	5	..
Totals	274	279	+5	10	3	7	26	5
4th District—								
Crawford	8	8	....	..	..	..	...	..
Grant	33	32	—1	..	..	1	...	..
Iowa	12	13	+1	..	..	..	1	..
LaFayette	15	16	+1	..	..	..	1	..
Richland	9	9	....	..	..	..	...	..
Totals	77	78	+1	..	..	1	2	..
5th District—								
Calumet	12	13	+1	..	..	..	1	..
Manitowoc	35	33	—2	2	..	..	...	1
Washington-Ozaukee	28	29	+1	..	..	..	1	..
Sheboygan	47	49	+2	..	..	..	2	..
Totals	122	124	+2	2	..	..	4	1
6th District—								
Brown-Kewaunee	60	54	—6	4	1	2	1	1
Door	7	4	—3	3	..	..	...	..
Outagamie	38	38	....	..	2	1	3	..
Fond du Lac	42	42	....	..	1	..	1	..

Winnebago	55	60	+5	..	1	..	6	..
Totals	202	198	—4	7	5	3	11	1
7th District—								
Juneau	7	8	+1	..	..	..	1	..
La Crosse	49	53	+4	1	..	..	5	1
Monroe	20	20	....	..	..	..	...	..
Trempealeau-J-B	23	26	+3	..	..	1	4	..
Vernon	14	10	—4	2	..	2	...	..
Totals	113	117	+4	3	..	3	10	1
8th District—								
Marinette-Florence	21	21	....	..	..	1	1	..
Oconto	9	12	+3	..	..	..	..3	..
Shawano	12	10	—2	2	..	..	...	..
Totals	42	43	+1	2	..	1	4	..
9th District—								
Clark	14	16	+2	..	..	..	2	..
Green Lake-W-A	22	19	—3	2	..	1	...	1
Lincoln	16	15	—1	..	..	1	...	..
Marathon	36	37	+1	..	..	1	2	..
Portage	21	20	—1	..	1	1	1	..
Waupaca	24	23	—1	1	1	1	2	..
Wood	24	24	....	..	..	..	...	..
Totals	157	154	—3	3	2	5	7	1
10th District—								
Barron-P-W-S-B	38	37	—1	..	1	4	4	..
Chippewa	23	21	—2	..	1	3	2	..
Eau Claire & A. C.	60	60	....	..	1	3	4	..
Pierce	5	7	+2	..	..	..	2	..
Rusk	9	8	—1	..	1	..	...	..
St. Croix	8	11	+3	..	..	..	3	2
Totals	143	144	+1	..	4	10	15	2
11th District—								
Ashland-B-I	29	28	—1	1	..	1	1	..
Douglas	38	36	—2	4	..	..	2	..
Langlade	13	11	—2	2	..	1	1	..
Oneida-F-V	15	14	—1	5	..	..	4	..
Price-Taylor	16	15	—1	1	..	..	...	..
Totals	111	104	—7	13	..	2	8	..
12th District—								
Milwaukee	527	559	+32	9	4	7	52	..
Grand Total	1987	2030*	+43	52	26	42	164	11

*In addition to the total membership twenty-two members, now deceased, paid their 1926 dues.

SECRETARY CROWNHART: One year ago at this time we reported the largest membership in the history of the State Medical Society of Wisconsin, and that membership was 1908. It gives your Secretary particular pleasure tonight to report to this House of Delegates that tonight we have 2001 living members. (Applause.)

Mr. President, the work of the Secretary of the State Medical Society is not only interesting, it is not only instructive, but it is a very real pleasure. I think in no other group of men will you find every member a college graduate; I think in no other group of men will you find such deep sympathy and such a ready understanding of the problems that the Society as a whole is trying to solve. If I were to emphasize here any one point it would be to say that in my work of three and a half years, I have been surprised and pleased to find just one point standing out above everything else, and that is that I never call on an individual member, no matter what part of the state he may be in, for some individual service that I do not get a letter back with the notation that that request has been filled. That, Mr. President, is what makes the work of your Secretary a very, very real pleasure. (Applause.)

PRESIDENT SMITH: The report of the Secretary will be referred to the Committee on Reports of Officers.

The next order of business is the Appointment of Reference Committees. This has already been done and the Committees have been announced.

The next order of business is the election of a Committee of 12 on nominations, one from each Councilor District. We will now listen to nominations.

SECRETARY CROWNHART: I am going to call the names of the Counties in the First Councilor District. While the elections are made by the House of Delegates as a whole, the nomination will be made from the Delegates among themselves from each district. More than one may be nominated, but only one is to be elected. The First District is composed of Dodge, Jefferson and Waukesha County Societies.

DR. H. O. CASWELL (Jefferson County): I nominate Dr. Rogers.

DR. A. A. HOYER (Dodge County): I nominate Dr. Caswell of Jefferson County.

DR. A. W. ROGERS (Waukesha County): I second the nomination of Dr. Caswell.

PRESIDENT SMITH: There being no second to the nomination of Dr. Rogers, Dr. Caswell is elected.

SECRETARY CROWNHART: The Second District is composed of Delegates from Kenosha, Racine, and Walworth County Societies.

DR. E. J. FUCIK (Walworth County): I nominate Dr. Windesheim.

SECRETARY CROWNHART: Dr. Windesheim is not a Delegate. You have to nominate a Delegate.

DR. E. J. FUCIK (Walworth County): I nominate Dr. George W. Nott.

DR. G. F. ADAMS (Kenosha County): I second Dr. Nott's nomination.

PRESIDENT SMITH: As there are no other nominations, Dr. Nott will be elected as Member of the Nominating Committee.

SECRETARY CROWNHART: The Third District is composed of Dane, Columbia, Green, Rock and Sauk County Societies.

DR. L. A. MOORE (Green County): I wish to place in nomination Dr. Nuzum.

DR. T. W. NUZUM (Rock County): I would like to nominate Dr. Munn.

DR. W. T. LINDSAY (Dane County): I second Dr. Nuzum's nomination.

PRESIDENT SMITH: There being no second to Dr.

Munn's nomination, Dr. Nuzum is elected as Member of the Nominating Committee from the Third District.

SECRETARY CROWNHART: The Fourth District is composed of Crawford, Grant, Iowa, LaFayette and Richland County Societies.

DR. A. J. MCDOWELL (Crawford County): I would like to place in nomination Dr. Betz of Boscobel.

PRESIDENT SMITH: There being no other nominations Dr. Betz is declared elected.

SECRETARY CROWNHART: The Fifth District is composed of Calumet, Manitowoc, Washington-Ozaukee and Sheboygan County Societies.

DR. E. C. CARY (Manitowoc County): I nominate Dr. Fred P. Knauf.

DR. H. M. LYNCH (Washington-Ozaukee): I second the nomination.

PRESIDENT SMITH: There being no other nomination, Dr. Knauf is declared elected.

SECRETARY CROWNHART: The Sixth District is composed of Brown-Kewaunee, Door, Outagamie, Fond du Lac and Winnebago County Societies.

DR. C. E. RYAN (Outagamie County): I nominate Dr. Minahan of Green Bay.

DR. D. N. WALTERS (Fond du Lac): I second the nomination.

PRESIDENT SMITH: There being no other nomination I declare Dr. Minahan elected.

SECRETARY CROWNHART: The Seventh District is composed of Juneau, La Crosse, Monroe, Trempealeau-Jackson-Buffalo and Vernon County Societies.

DR. W. E. BANNEN (La Crosse): I would like to nominate Dr. Sheehy.

DR. C. F. PETERSON (Independence): I second the nomination.

PRESIDENT SMITH: Dr. Sheehy has been nominated. There being no other nominations he is declared elected.

SECRETARY CROWNHART: The Eighth District is composed of Marinette-Florence, Oconto and Shawano County Societies.

PRESIDENT SMITH: There being no other member present, I declare Dr. A. J. Gates of Tigerton elected.

SECRETARY CROWNHART: The Ninth District is composed of Clark, Green Lake-Waushara-Adams, Lincoln, Marathon, Portage, Waupaca and Wood County Societies.

DR. F. E. CHANDLER (Waupaca): I nominate Dr. H. M. Coon of Stevens Point.

DR. K. W. DOEGE (Wood County): I second the nomination.

PRESIDENT SMITH: There being no other nomination I declare Dr. Coon elected.

SECRETARY CROWNHART: The Tenth District is composed of Barron-Polk-Washburn-Sawyer-Burnett, Chippewa, Eau Claire and Associated Counties, Pierce, Rusk and St. Croix County Societies.

DR. ROLLA CAIRNS (Pierce County): I nominate Dr. Epley of St. Croix County.

DR. W. C. G. HENSKE (Chippewa County): I nominate Dr. H. M. Stang of Eau Claire.

DR. O. J. BLOSMO (Menomonie): I second Dr. Stang's nomination.

PRESIDENT SMITH: Dr. Stang's nomination being the only one seconded, I declare Dr. Stang elected.

SECRETARY CROWNHART: The Eleventh District is composed of Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas and Price-Taylor County Societies.

DR. HATHAWAY (Superior): I nominate Dr. Dodd of Ashland.

DR. J. M. DODD (Ashland): I take pleasure in nominating Dr. Hathaway of Superior.

DR. J. C. WRIGHT (Antigo): I second the nomination of Dr. Hathaway.

PRESIDENT SMITH: The nomination of Dr. Hathaway being the only one seconded, I declare Dr. Hathaway elected.

SECRETARY CROWNHART: The Twelfth District is composed of Milwaukee County Medical Society.

DR. H. W. POWERS (Milwaukee): I place in nomination Dr. Robert W. Blumenthal.

DR. W. HALSEY (Milwaukee): I second the nomination.

PRESIDENT SMITH: There being no other nomination I declare Dr. Blumenthal elected.

SECRETARY CROWNHART: Mr. President, the Secretary has discovered that while nominations were made from each district for the members of the Nominating Committee, they were not formally elected by the House. I believe to insure a legal election the President should entertain a motion at this time to cast the unanimous ballot of the House for all members nominated as members of the Nominating Committee.

DR. W. HALSEY (Milwaukee): I move that under suspension of the rules the Secretary be requested to cast the unanimous ballot of the House for members of the Nominating Committee as a whole.

The motion was seconded by Dr. W. C. G. Henske of Chippewa Falls and carried unanimously.

SECRETARY CROWNHART: Will Dr. Caswell, the first nominee, come forward and receive the envelope and act as Chairman? Will the Committee meet in the corner of the room after this session and determine upon its procedure? It will report to the House of Delegates Thursday morning. This time is set by the Constitution.

The Committee on Public Policy and Legislation, Dr. F. B. McMahon. Will he be present?

DR. R. W. BLUMENTHAL (Milwaukee): I understood he would not be here as a Delegate.

PRESIDENT SMITH: Dr. McMahon not being present, I will appoint Dr. Halsey of Milwaukee on this Committee in his place.

SECRETARY CROWNHART: The Committee on Public Policy and Legislation consists of Dr. Halsey, Dr. Rolla Cairns of River Falls, and Dr. K. W. Doege of Marshfield. Will you meet here in this corner and determine upon your future proceedings?

Committee on Reports of Officers, Dr. A. W. Rogers, Dr. Beech and Dr. Nuzum, will meet in this corner immediately after the session and decide upon your future proceedings.

Committee on Resolutions, Dr. Egan, Dr. Bannen and

Dr. Nott, will meet after the session. Dr. Egan, will you take this envelope?

PRESIDENT SMITH: The next order of business is the election of Delegates and Alternates to the American Medical Association to succeed Dr. Rock Sleyster and H. M. Brown, Delegates, and Dr. W. E. Bannen and F. Gregory Connell, Alternates.

SECRETARY CROWNHART: Your Secretary is in receipt of the following letter:

"Because of my election to the Board of Trustees of the American Medical Association, it is fitting that I present my resignation as a delegate to the Association from Wisconsin.

"In years of service I am one of the oldest members of the House, but I am assured I can better serve both the Association and our own State Society as a member of the Board. Acceptance of an election as delegate to the American Medical Association means reponsibility, sacrifice and hard work each year, and one's influence is felt only after continued service. I wish to urge the election of someone who has shown interest and enthusiasm in organization work, and who can afford to make the sacrifice continued service as delegate requires.

"I sincerely regret my inability to be with you. It is the first session I have missed in twenty years. I wish to extend kindliest greetings and wish you every success in your endeavors for this wonderful society of ours—a State Society which I truly believe has no equal in practical accomplishment, sincerity of effort, loyalty and true brotherly feeling.

"Cordially yours,

"Rock Sleyster."

DR. R. W. BLUMENTHAL (Milwaukee): I presume it will be necessary to accept this resignation, and I suggest that we do so with regret. I wish to place in nomination the President of the Medical Society of Milwaukee County, a man who has been very, very active in the Society work and has done much to bring the Medical Society of Milwaukee up to its present membership and standard, Dr. Stanley Seeger of Milwaukee.

DR. W. CUNNINGHAM (Platteville): I move that we refer the nomination to the Nominating Committee.

DR. J. W. POWERS (Milwaukee): I wish to second the nomination made by Dr. Blumenthal.

DR. ROLLA CAIRNS (Pierce County): I second the motion that the nominations of Delegates and Alternates be referred to the Nominating Committee to report to us on Thursday morning.

DR. J. W. POWERS (Milwaukee): I rise for information. Is that the proper function of the Nominating Committee?

SECRETARY CROWNHART: The only precedent is when there was a vacancy on the Committee on Hospitals and another on the Committee on Medical Education. In neither case did the House want to determine it that night and in both cases they referred it to the Committee on Nominations.

PRESIDENT SMITH: Apparently there is no reason why the House should not do this if they so decide.

All in favor of this motion to refer the nomination for Delegates and Alternates to the Nominating Committee will signify by saying "aye," opposed "no."

The motion carried unanimously.

PRESIDENT SMITH: Next is the report of the Committee on Constitution and By-Laws.

SECRETARY CROWNHART: Mr. President, at a meeting of the House last evening, the House was called to order, roll call was dispensed with, Dr. McDowell of Soldiers Grove presented the report of the Committee on Constitution and By-Laws, it was ordered laid on the table and the meeting then adjourned.

PRESIDENT SMITH: The proposed Constitution and By-Laws are printed in the Handbook. You have been requested to study this carefully and be prepared to make your decision. In order to expedite matters, assuming that you have all read this over, let us take up the Constitution first and ask if anyone has any objection to any of the provisions of the Constitution, not considering the By-Laws at the present time.

DR. WINDESHEIM (Kenosha): This Constitution and By-Laws has been before the members of this House for a month. Do not delay it now or lay it on the table until tomorrow. It can be acted upon tonight. Personally, I am perhaps as much interested in the Constitution as any member here. Nine or ten years ago Dr. Sleyster and myself were appointed to revise the Constitution and we got out the one that has been in effect since. I have made a thorough study of this and have found some changes which I consider for the better. If they are not, they will have to be tried out anyhow for a year or two. The Committee has brought in a wonderful report, has done hard work, and I move you that the report of the Committee be accepted, that the Constitution and By-Laws as presented in the Handbook be adopted by this Society tonight. I so move.

The motion was seconded by Dr. Adams of Kenosha, Dr. Schmeling of Columbus and Dr. Bannen of La Crosse.

PRESIDENT SMITH: The question before the House is on the adoption of the report of the Committee. Is there any discussion? If not, all in favor of the adoption of the Constitution and By-Laws as printed will signify by saying "aye," opposed "no." The ayes have it, and the motion is carried.

DR. HALSEY (Milwaukee): In order to make this legal I would move that this Constitution and By-Laws, numbering the Articles in the Constitution from 1 to 13, and the By-Laws, Chapter 1 to 12 inclusive, be adopted as the Constitution and By-Laws of the State Medical Society of Wisconsin.

The motion was seconded by Dr. Windesheim.

PRESIDENT SMITH: It has been moved and seconded that the Constitution as designated by the Articles and the By-Laws designated by the Chapters and Sections indicated be the Constitution of the State Medical Society of Wisconsin.

Motion carried unanimously.

PRESIDENT SMITH: Dr. Carl Davis, Vice-President, will please take the chair.

Vice-President Davis took the chair.

SECRETARY CROWNHART: Under the new Constitution

you have changed the terms of the Councilors from six years to three years, which means that each year you will elect four Councilors instead of two. This being the case, you have now before you the election of a Councilor to succeed Edward Evans of the Seventh District, T. J. Redelings of the Eighth District, Joseph Smith of the Ninth District and R. E. Mitchell of the Tenth District. It has been the precedent in the House of Delegates to have a nomination for the Councilor come from among the Delegates in his own Councilor District. That is, while the House elects, the nomination should probably come from someone in his own District. While the House, Mr. Chairman, if I may make the suggestion, takes a two or three minute recess, I suggest that the members of the Seventh District meet in the rear left corner, the Delegates from the Eighth District meet in the rear right corner, from the Ninth District in the front right corner and the Tenth in the left front corner, and when the House is again called to order I suggest they have a nomination ready to present to the House.

Chairman Davis: The chair will declare a recess of five minutes while the various Councilor Districts make the nominations for Councilors for their districts.

Recess.

Chairman Davis: Nominations are in order for Councilor from the Seventh District to succeed Dr. Edward Evans.

Dr. C. C. Vogel (Juneau County): We nominate Dr. Edward E. Evans to succeed himself.

Seconded by Dr. Sheehy of Tomah, and carried.

Chairman Davis: Eighth District Councilor to succeed Dr. T. J. Redelings.

Dr. A. J. Gates (Shawano County): I happen to be the only Delegate here from our District and I move that Dr. Redelings of Marinette be re-elected. On behalf of Shawano County we are satisfied with him, I know Marinette County is satisfied with him and I know Oconto County is. I don't know much about Florence. Although I am all alone, I imagine it would be a unanimous choice.

Dr. T. J. Redelings (Marinette): It occurs to me that possibly for the good of the Society it would be becoming on my part to decline.

Chairman Davis: I am afraid Dr. Redelings is out of order.

Dr. Rolla Cairns of Pierce County seconded Dr. Redelings' nomination, and it carried unanimously.

Chairman Davis: Dr. Redelings is declared elected.

The next is nomination for Councilor to succeed Dr. Joseph F. Smith of the Ninth District.

Dr. K. W. Doege (Marshfield): In view of the services of Dr. Smith the present members of the Ninth Councilor District feel they would very much like to see Dr. Smith re-elected to his present position as Councilor for the Ninth District and place his name in nomination again.

Dr. W. H. Bayer (Merrill): I second the nomination.

The nomination carried.

Chairman Davis: I declare Dr. Smith re-elected.

The next is the Tenth District to succeed Dr. R. E. Mitchell.

Dr. Rolla Cairns (River Falls): I nominate Dr. Mitchell to succeed himself.

Dr. O. H. Epley (New Richmond): I second the nomination.

Dr. O. J. Blosmo (Menomonie): I nominate Dr. Stang.

Dr. W. C. G. Henske (Chippewa Falls): I second the nomination.

Secretary Crownhart: Mr. Chairman, you have before you the nominations for Councilor for the Tenth District, Dr. R. E. Mitchell of Eau Claire and Dr. H. M. Stang of Eau Claire. It will be necessary, in accordance with the Constitution, to cast a written ballot.

Chairman Davis: I will appoint Dr. Patek and Dr. Rogers as tellers.

Secretary Crownhart: Only Delegates are entitled to vote. Alternates will not vote unless their Delegate is not present. Under the new Constitution, members of the Council are Delegates.

President Smith resumed the chair.

President Smith: I call on Dr. Rogers to make the report of the tellers.

Dr. A. W. Rogers (Oconomowoc): Forty-seven voting, 22 for Dr. Mitchell and 25 for Dr. Stang.

President Smith: I declare Dr. Stang elected Councilor for the Tenth District.

Under the new Constitution and By-Laws which you have adopted it will be necessary to elect a Speaker and Vice-Speaker of the House to preside at the next session. Do you desire at this time to elect a Speaker and Vice-Speaker for the 1927 House of Delegates?

Dr. L. A. Moore (Green County): I move you that the Speaker and Vice-Speaker be nominated by the Nominating Committee and elected with the rest of the Officers.

Seconded by Dr. G. F. Adams of Kenosha.

Secretary Crownhart: "The officers of this Society shall be a President, a President-Elect, a Secretary, a Treasurer, twelve Councilors, and a Speaker and Vice-Speaker of the House of Delegates. The officers, except the Councilors, shall be elected annually." There is no provision whereby they could not be referred to the Nominating Committee. Of course, that does not preclude additional nominations from the floor. The only provision is that the Speaker and Vice-Speaker must be members of the House of Delegates.

President Smith: It has been moved and seconded that the election of a Speaker and Vice-Speaker be referred to the Committee on Nominations.

The motion carried.

President Smith: It is so referred.

President Smith: The next order of business is Election of Committees and Delegates. First of these is the Committee on Public Policy and Legislation. We will now hear nominations for membership on the Committee of Public Policy and Legislation.

Secretary Crownhart: For the convenience of the Delegates, you will find the members of these Committees in the Handbook, on page three and following.

President Smith: The present members of the Committee are:

Dr. O. B. Bock,
Dr. D. L. Dawson, and
Dr. J. J. McGovern.

Dr. H. W. Powers (Milwaukee): It seems to me that the Committee as now constituted has been a very active and well chosen one, and I move that the Secretary, under suspension of the rules, be instructed to cast the unanimous ballot of the Society for the present Committee to succeed themselves.

The motion was seconded by Dr. G. D. Beech of Adams, carried unanimously, and the Secretary cast the ballot.

President Smith: Next is the Committee on Medical Education. The present members of that Committee are:

Dr. L. F. Jermain,
Dr. Edward Evans, and
Dr. C. R. Bardeen.

Are there any nominations for members of the Committee on Medical Education?

Dr. C. E. Ryan (Appleton): I move that the rules be suspended and the Secretary cast the ballot for the present members of that Committee to succeed themselves.

The motion was seconded by Dr. G. W. Nott and carried unanimously. The Secretary cast the ballot.

President Smith: The next is the Editorial Board. It is misprinted in the handbook as "Committee on Publication." The personnel of the present Board is:

Dr. Oscar Lotz,
Dr. Joseph F. Smith, and
Dr. Hoyt E. Dearholt.

Dr. W. Cunningham (Platteville): I move that under suspension of the rules the Secretary cast the ballot for these to be elected to succeed themselves.

The motion was seconded by Dr. Gramling of Milwaukee, carried, and the Secretary cast the ballot.

President Smith: Next order of business is the election of a Delegate to the Council on Medical Education of the American Medical Association to succeed Dr. L. F. Jermain of Milwaukee.

Dr. E. C. Cary (Reedsville): I move Dr. Jermain be elected.

Dr. W. Halsey (Milwaukee): I would like to nominate Dr. G. V. I. Brown of Milwaukee.

Dr. R. W. Blumenthal (Milwaukee): I would like to second the nomination of Dr. Brown.

Dr. W. C. G. Henske (Chippewa Falls): I second Dr. Jermain's nomination.

President Smith: The nominations of Dr. Jermain and Dr. Brown have been seconded. We will vote by ballot. I will appoint the same tellers we had before. Dr. Patek and Dr. Rogers.

Secretary Crownhart: While we are waiting for the tellers to collect and count the ballots, may I suggest that the House receive any resolutions that any Delegate wishes to introduce? All he will need do is introduce it by title, present it at the desk and it will automatically be referred to the Committee on Resolutions and returned to the House with their recommendations tomorrow night.

Dr. G. W. Nott (Racine): I would like to introduce a resolution regarding dues of the Medical Society. For many years past our dues have been $9 a year. I feel, after what our Secretary has said tonight, mentioning or suggesting the paying of the Delegates' and other expenses which we will incur in going to the different Societies, that our dues should be raised from $9 to $10 a year and I should like to offer that as a resolution.

Dr. T. J. Redelings (Marinette): I second the resolution.

President Smith: It will be referred to the Committee on Resolutions.

Dr. R. W. Blumenthal (Milwaukee): I wish to present a resolution regarding the licensing of hospitals.

President Smith: This will also be referred to the Committee on Resolutions.

Dr. H. W. Powers (Milwaukee): I wish to present a resolution upon the matter of periodic health examinations.

President Smith: This will also be referred to the same Committee.

Dr. W. Halsey (Milwaukee): I have a resolution in regard to licensing foreign physicians in Wisconsin.

President Smith: Also referred to the Committee on Resolutions.

Dr. H. Gramling (Milwaukee): I would like to offer a resolution on nurses.

President Smith: That also will be referred to the Committee on Resolutions.

We will hear the report of the tellers.

Dr. A. W. Rogers (Oconomwoc): Forty-seven voting, Dr. Jermain 26, Dr. Brown 21.

President Smith: I therefore declare Dr. Jermain elected. The next order of business is the election of a member of the Committee on Health and Public Instruction to succeed Dr. W. D. Stovall of Madison. I will entertain nominations for a member of this Committee.

Dr. W. T. Lindsay (Madison): I would like to nominate Dr. Stovall for re-election.

Dr. E. J. Fucik (Walworth County): I second the nomination.

The nomination carried.

President Smith: The next order of business is members of the Committee on Hospitals to succeed Dr. Joseph Lettenberger of Milwaukee and Dr. J. V. R. Lyman of Eau Claire, deceased.

Dr. H. W. Powers (Milwaukee): I place in nomination Dr. John C. Gordon of Milwaukee.

Dr. H. Gramling (Milwaukee): I second the nomination.

President Smith: There being no other nominations, all in favor of Dr. Gordon signify by saying "aye."

The motion carried.

President Smith: Now another member of this Committee, to succeed Dr. J. V. R. Lyman, deceased.

Dr. G. W. Nott (Racine): I would like to nominate Dr. K. W. Doege of Marshfield.

Nomination seconded by Dr. H. W. Powers and carried.

President Smith: I declare Dr. Doege elected.

Secretary Crownhart: To follow out the precedent in previous years, while the Committee on Resolutions

brings in a resolution regarding dues, they have also requested heretofore that the members express themselves at this time so they will have that sentiment to carry with them into their Committee and determine what resolution they shall introduce. I think that would be proper at this time.

Dr. T. J. Redelings (Marinette): I would like to report to the House that just before leaving yesterday evening my secretary called me and said, "Doctor, be sure and have our Delegates vote for an increase in dues." That is the spirit which pervades the Eighth District. We are small, but we feel that way about it.

President Smith: This matter, of course, affects you all. We would like a very frank expression from you. You are representing the State Medical Society, the men who are not here.

Dr. R. W. Blumenthal (Milwaukee): I believe that the Milwaukee Delegates are absolutely for this increase because they know what benefits will be derived by having this slight increase in dues.

Dr. A. F. Schmeling (Columbus): We had a meeting on the first of this month and by unanimous vote the dues were increased to $10 instead of $9. We thought it was absolutely necessary that the Society have more dues to carry on its work.

Dr. A. A. Hoyer (Beaver Dam): I wish we could recognize the practice of some of the county societies in Wisconsin of letting in our old members as honorary members and allowing them to enjoy the privileges of the Society. I find we have several in our Society who are not in position to pay $9 and certainly would not be in position to pay $10. I rather think that we should extend to these older members an invitation to be honorary members, and not have any dues.

President Smith: This matter was discussed in the Council this afternoon. While it is a rather difficult matter to adjust at the present time, the Conucil has put this matter on for discussion in January and some action will be taken in regard to these old members who are retired from practice or are incapacitated by reason of ill health. Undoubtedly there will be some resolution from the Council on that subject.

Dr. J. F. Mauermann (Monroe): I think the suggestion made by the officers is the proper thing to do. If you raise more than one dollar, there will be a lot of kicking going on, probably there will be enough kicking the way it is. I suggest we leave it the way the officers decided it and make it $10.

Dr. J. C. Wright (Antigo): I have been something like twenty years in our county and this spring instead of being able to be 100 per cent as we have been in years previous, I had this confront me, "The Medical Society at the annual meeting is raising the dues. They have been raising them every year and I made up my mind that I would drop out. I don't feel that I am able to pay the amount that is expected of me and as it is increasing every year I am going to drop out of my Society." Men I had always counted on refused to pay their dues this year, several because they thought the Society was raising the dues every year. If it is absolutely necessary, I feel as though the young physicians should be willing to stand for that but if there are a few in our order who feel it is a burden to them to pay more dues than they have been paying in the past, I think they should be excused and there should be some rule by which we can keep these old members who have always been staunch members in the County Medical Societies.

Dr. Rolla Cairns (River Falls): I should like to second the remarks of our last speaker. I come from the very west side of the State. My home is only thirty miles from St. Paul. The people in our County are connected more in Minnesota than in Wisconsin and a good many of us feel as though we are outside the boundary of Wisconsin. I believe there are only four Delegates from our whole district this evening. Most of our District is not represented here. Most of the members of our County Society feel that they have very little in common with our Wisconsin State Society, and we have several physicians in our County who are very regular attendants at our County Meetings and are anxious to take part in the County Meetings, who say they will not pay $9 a year dues to the State Society and do not pay their dues. It is a problem with the Secretary as to what to do with those members. They are dropped from membership for non-payment of dues. Yet they are men anxious to work in the County Society and we don't know where to put them.

Dr. W. Halsey (Milwaukee): It seems to me the last two speakers are looking at this thing in rather a wrong light. The $9 being paid as dues might be considered as an investment. We are getting something for it. The gentleman from the far western part of the State whose members feel that they do not belong to the State, will likely find they very much belong to the State when it comes to the Medical Practice Act. If they are practicing in Wisconsin they must abide by the laws and observe the laws that make the practice of medicine a fairly comfortable thing. Those members are looking at the thing in an entirely wrong light. If it is necessary to have $9 to help the practice of medicine in the State of Wisconsin I think $9 should be invested. The Doctor said the dues are going up and have been going up year after year. As a matter of fact they have not been raised since 1922. But we might say the same thing about bonds. One year $100 bonds are not such a good investment and $500 bonds are a much better investment. We are planning in the same proportion and our money, I believe, is being invested. I am very sorry to hear people in the western part of the State say they feel they belong to Minnesota.

Dr. C. F. Peterson (Independence): I represent counties on the Mississippi near Minnesota and I don't believe it is general that those men object to the raise of $1. I am quite sure that the members of our County Society are personally willing to pay the $10 fee.

Dr. W. C. G. Henske (Chippewa Falls): In our county a vote was passed unanimously that we make the dues $10.

Dr. A. W. Rogers (Oconomowoc): I haven't heard anyone mention our Journal. We buy the Cosmopolitan and the Red Book, and yet we have had about four or

five dollars' improvement in our Journal in the last two or three years. We are certainly getting something for our money. Waukesha County is quite agreeable to any such change.

Dr. T. J. Redelings (Marinette): May I say a word of encouragement for the Secretary upon whom the burden of collecting these dues falls? I think it was Teddy Roosevelt who said, "Every man owes his profession something." Put that up to your men. The question of salesmanship on the part of the Secretary will be a large factor. I am reminded at this moment of a story I heard, if I may impose it upon this Society, of two Jews who met and one said to the other, "I am a wonderful salesman. Just think what I did. I sold twelve gross of suits to Marshall Field & Company."

The other said, "Oh, that isn't salesmanship, that is just an order. I'll tell you what it is, salesmanship. You know that Widow Brown. You know her husband died. She came into my store and I sold her a suit of clothes with two pairs of pants."

It is a question of the Secretary every single time, and your men will come in droves. I have experienced this with the assistance of a live Secretary. Put the job to your Secretary.

Dr. J. W. Lockhart (Oshkosh): I just want to say that I believe we want to keep our list of honorary members down as low as possible. When I get so old I can't pay my dues I don't want anybody to pay them for me.

Dr. K. W. Doege (Marshfield): I rise for information, whether the Secretary or any one of the officers has an express desire for more funds to undertake the work during the coming year. If they need it I think everybody will be willing to pay it. If they don't need it there will be no use in raising the dues. One dollar is not very much. It might be wise not to have dispute spread amongst the members of our profession and the feeling prevalent that the dues are being raised every year unless the need is there. If the need is there, I believe we all are in favor of it.

Secretary Crownhart: I think Dr. Doege has brought up a very important point. He has asked whether this Society needs a raise in dues. I fear some have hesitated to express their remarks because they feel possibly they are going to criticize the Secretary and they don't quite like to do that. I hope no one feels that way. The matter of increase of dues is entirely up to you. Your Society has progressed to a certain stage. Your officers see some important additional steps that can be taken if they have the funds available. We can keep on with the program we are carrying out this year on the present basis. It would hamper us some if the dues were reduced. We could do more if the dues were increased. What you do is entirely up to you. We don't want anything that is going to interfere seriously with the organization, because after all, we depend upon the strength of the organization as a whole, not just in Milwaukee County, not just in Oconto County, but in every County in the State, for our accomplishments. That is all we can say. We have things in mind that we think are valuable. We think the present program is worth while. It is entirely up to this House of Delegates whether they desire to undertake the new work that we see ahead of us or whether they desire to keep on at the present rate for the coming year.

Dr. J. C. Wright (Antigo): If I understand correctly, two years ago at a meeting of this kind we were given to understand that we had plenty of money on hand. I don't understand why it should be necessary to raise it. I appreciate what the Secretary has done, but he says we can go on the same as we have been going. I think we are doing well enough. If we are going to lose some of our old members simply because the dues are raised, I don't think that is fair. Remember, too, that every County has its dues to raise besides the raising of the State dues. Some of our old members would look quite a while before they would pay a total of $15. I don't think that it is fair for the old members, those who have really gotten out of the practice of medicine. to be expected to pay $15 a year when they are practically not doing any business, but still they want to be active in the Medical Society of the County, they want to be there and they want to have a voice in the meeting. I am just speaking in behalf of them. If you need this money, sure we will pay it, we will be glad to do it. The Secretary said we were going along fine two years ago and said we could reduce it to $7 if it were necessary.

Dr. G. F. Adams (Kenosha): In the new Constitution that we have just adopted, under Article 10, Funds and Expenses, it provides that the Treasurer and Secretary shall submit an annual budget to the Council. The new Constitution is so young that that time has not arrived yet. Wouldn't it be possible, wouldn't it be practical, for us to put this over to another meeting of the House of Delegates? We have heard a lot about the old men. I am one of them, I can pay my dues yet, but how about the young sport? He hasn't any money. He is in debt. Do you want the dues so high that he can't even get in? That is another point of view. I am in favor of anything for the good of the Society, it doesn't make any difference whether I pay $9 or $10, so far as I am concerned, but how about the old man and the young man? Think it over.

Dr. C. E. Ryan (Appleton): I am in favor of the remarks of the last man who spoke. I have much interest in the young man. In our County we haven't any old men. I am the oldest man myself. There are a lot of young men who seem to have a harder time to pay dues than the older men. This is a matter that I think should come up for discussion in the county societies before it comes up in the House of Delegates. I am in favor of laying this over for another year and having it thoroughly thrashed out in the County Societies before the next meeting of the House of Delegates and then let the Delegates come here and be able to express themselves intelligently when they will have the consent of the Society which they represent.

Dr. J. W. Powers (Milwaukee): I think our dues are very, very small as compared with those of other men. The skilled laborers pay $15 to $18 a year and more to their unions. I think had we had money in the

treasury years ago we might have greatly influenced legislation adverse to us as we have been able to do in the past few years. The program on lay education, to my mind, has been of immense influence. The circulation, for instance, of copies of the lay issue of the Journal and the reprints sent out to the press are of great influence and we have great need of doing a little work in Madison here when legislature is in session. All those things take money. With a wealthy treasury we amount to something. If we are poor and needy, without funds to do anything, we don't amount to anything.

See the power and influence of the American Medical Association today. Years ago it was despised and downtrodden. Today it exercises very great influence throughout the whole country. I believe that a little more money spent in dues would be a very excellent investment.

Dr. J. R. Minahan (Green Bay): Every time the matter of fees came up there were very dire results. I remember when we paid $1 a year, and when it was raised to $2, the moans and groans were something pitiful, and in time it was raised to $3 and to $4 and it increased and kept on. Now when it is up to $9 or $10 we have the same groans and moans that we had when it was raised from $1 to $2.

I should not like to do anything that would make a hardship on any of our old members or on any of the young members. I think our wise Councilors would probably place an age limit, and number of years of service, so that those who have not reached the age limit and are able to pay, can keep on paying. It is just as our Secretary said. If he has the money he can do more for us. Are we satisfied with our position or would we begrudge another dollar? I can see the time, if I live long enough, when we will be raising it to $11 and we will have the same moans and groans that we are having tonight, and that we had when we raised from $1 to $2. Life is too short to let it go by without improvement and if this extra dollar will give us improvement, and if we get one hundred per cent on our investment, I don't think there is anyone in the Society who would begrudge that extra dollar. Our Society is increasing in membership, and if we had thought of $9 way back in the early years we would have been amazed. Everything in life has increased. It costs more to live, you pay three times as much for living. We can't carry on the expenses of our Society now as we did before on lower dues.

I think it is too bad that we didn't have a notice of this that it might have been brought up to our county societies, because some of them will say, "You go down to Madison and vote a higher rate," while if we have their sentiment we will do what they want us to do. I believe there are very few counties in the state that will not stand for $10 as long as we make good use of it.

President Smith: This matter will be referred, of course, to the Committee on Resolutions and these remarks are for the guidance of that Committee. There is nothing to prevent the Committee from bringing in a report that this matter be postponed for another year if they see fit, or the House tomorrow at its session can do anything it desires with that report. Discussion on the subject is informal at this time for the information of the Committee.

Dr. T. J. Redelings (Marinette): Won't you kindly at this time review briefly what was said this afternoon with reference to honorary and associate members? May I be indulged just a moment to say that the problem of the unfortunate man in the county society may be a local matter disclosing family affairs. Our county has remitted the dues of a man who for some good reason is unable to pay. It is an easy matter to overcome an individual's inability to pay if he is worthy. If he is not worthy, what is the use talking about it?

Dr. W. E. Bannen (La Crosse): It seems to me in regard to postponing this to another year and talking it over with the county societies, every man here is a Delegate representing his Society, has been elected by his fellows with the full confidence in his ability, his integrity and honesty to represent them at this House of Delegates. Every Delegate had a month's notice that this question had been raised. If this Delegate votes to raise the dues and goes back to his Society and explains to his Society in meeting or in personal contact with the members that the State Medical Society has been growing, has been doing work, that it has planned for a greater work, that more funds will be necessary to carry out this enlarged program, this greater vision, we will have no difficulty with these members at home in endorsing the raise in fee that their Delegates with vested authority were sent to make.

I come from the western part of Wisconsin. We enjoy our association with Minnesota. We know the Minnesota physicians are paying more for their membership in county societies than we are (their state dues are $15), we believe they are not getting as much out of their county societies as we are in Wisconsin, we are perfectly satisfied to have the Prohibition Department or our Federal Reserve Bank in Minnesota administer Wisconsin affairs, but we are not willing that they shall have anything to say in the affairs of the Medical Society of the State of Wisconsin. (Applause.)

President Smith: We will close the discussion on this subject at this time. It will be up tomorrow. We don't want to prolong it unduly tonight. Is there any other new business to be brought up this evening before we adjourn?

Secretary Crownhart: I want to call the attention of the Committee on Resolutions to the fact that the last report in the Handbook is a special communication from the Secretary of the American Medical Association. Will they please consider that under the head of their Committee business?

The Constitution provides that the House of Delegates shall set the time for its succeeding sessions. Before we knew exactly what the scientific program was going to be, we suggested in the Handbook that the second session of this House be held in the Colonial Room at seven o'clock tomorrow night and it would run from seven to eight, at which time the House would adjourn to attend the opening meeting across the street at the First Congregational Church and seats will be reserved

for the members of the House. We now find, however, that the scientific program will not open until nine-thirty in the morning. Do you prefer to meet at eight in the morning or at seven in the evening?

I want to call attention that it will be very necessary to start at seven because you will have the reports of all these reference committees before you and we want to transact as much business as possible before eight o'clock.

PRESIDENT SMITH: How many would rather meet at seven o'clock in the evening? How many at eight in the morning? Seven o'clock tomorrow evening seems to be the majority.

There is one report, the Committee on Medical Defense, Dr. Patek.

DR. A. J. PATEK (Milwaukee): I would like to make a little supplementary report to the one published in the Handbook. During the first few years of my incumbency as Secretary of the Medical Defense, I issued an annual tabulation of all the cases that came under our notice. When I stopped this work in 1918, these annual tabulations were omitted. Just in the last few days I have tabulated all the cases that have come before the Committee in the eighteen years from 1908 to the present, and I wish very briefly and quickly to read these to you. This tabulated report with some additions will be published later with the proceedings.

The total number of cases that have come under the Medical Defense in the eighteen years from 1908 to the present were 181. Of these 44 cases were won, 8 were lost, 8 are pending, 35 were dismissed, and of these 35, many of them should rightly be added to cases that were won because many were dismissed after certain legal proceedings had already been begun and were then favorably acted upon.

No action has been taken in 73 of these 181 cases, most of these "no action" cases will never be fought, and many of them were discontinued upon proper and quick action taken by our attorney.

About 9 (I may be in error as to that number) refused assistance, 3 of them because they were not members in good standing, in other words had not paid their dues, 3 were refused because they were not members of the society when the alleged malpractice was committed, and 3 cases in which assistance was sought were not essentially malpractice cases. So, we have a total of 181 cases that have come under Medical Defense since 1908.

Of those it may be interesting to you to know just what the general run of the cases was. The largest number by far, 74, were cases of improper and negligent medical and surgical diagnosis and treatment; of those 74, 18 were won at trial, 3 were lost. In one case damages of $300 were assessed, another case was settled out of court, and one case was lost though I have no notation as to what damages were offered. Many of those cases were dismissed and in a large number no action taken.

The next largest group is that of improper treatment of fractures; 11 were won, 3 lost, 15 dismissed (and when I say dismissed it means dismissed after preliminary trial or after a first hearing and then cases were dropped or non-suited).

Improper Treatment—needless amputation—4; 2 won, 2 no action.

Responsibility for development of post-operative hernia 2, no action followed in both.

Responsibility for deaths from anesthetic, 5; 4 won, 1 dismissed.

Leaving foreign body in wound after operation, 3; 2 won, 1 lost.

X-ray burns, 6. In one case there was a rather large verdict, and 3 cases were dismissed.

Improper treatment of newborn, 1.

Improper diagnosis in case of insanity, 2; 1 was won.

Improper treatment of mastoid disease, 3.

Improper treatment of confinement, 5.

Miscellaneous cases, 24.

We have thus 181 cases in eighteen years which were defended by our Society and the totals which I read of cases won and those dismissed and those in which no action was taken leaves but a very small number of cases, 8 in fact, out of 181, that really were lost, and of those one or two were sent to a higher court and one of those was later reversed. I think that it is a splendid record and pretty good testimony as to the value of Medical Defense. I would perhaps, merely to revert to the discussion on the increase in dues from $9 to $10, merely call attention to the fact of the large amount of money which the Society has expended for defense. I am quite sure that when a member of the Society who lives in a county contiguous to Minnesota asks for defense he is going to get it, and that $1 may look difficult to him, but will hardly justify his wanting to withdraw from the Society.

SUPPLEMENTARY REPORT

Improper and Negligent Medical and Surgical Diagnosis and Treatment		74
Won	18	
Lost { 1—Damages $300.00; 1—Settled out of Court; 1—Lost }	3	
Dismissed	17	
Pending	6	
No action	30	
Improper Treatment of Fractures		44
Won	11	
Lost	3	
Dismissed	15	
Pending	2	
No action	13	
Improper Treatment: Needless Amputation		4
Won	2	
Lost	0	
Dismissed	0	
Pending	0	
No action	2	
Responsibility for Development of Post-Operative Hernia		2
Won	0	
Lost	0	
Dismissed	0	

Pending	0	
No action	2	
Responsibility for Death from Anesthetic		5
Won	4	
Lost	0	
Dismissed	1	
Pending	0	
No action	0	
Leaving Foreign Body in Wound After Operation		3
Won	2	
Lost	1	
Dismissed	0	
Pending	0	
No action	0	
X-ray burn		6
Won	0	
Lost (Verdict $2,500.00)	1	
Dismissed	3	
Pending	0	
No action	2	
Improper Treatment of Newborn		1
Won	0	
Lost	0	
Dismissed	0	
Pending	0	
No action	1	
Improper Diagnosis in Case of Insanity		2
Won	1	
Lost	0	
Dismissed	0	
Pending	0	
No action	1	
Improper Treatment of Mastoid Disease		3
Won	1	
Lost	0	
Dismissed	1	
Pending	0	
No action	1	
Improper Treatment of Confinement		5
Won	3	
Lost	0	
Dismissed	2	
No action	0	
Pending	0	
Miscellaneous		24
Won	2	
Lost	0	
Dismissed	1	
No action	21	
Pending	0	
TOTAL—1908 to date		181
Cases won	44	
Cases lost	8	
Cases pending	8	
Cases dismissed	35	
(Many after trial and should rightly be added to those won.)		
No action	73	
(Many after attorney had filed replies.)		
Refused assistance	9	177
(3 members not in good standing, 3 not members of Society when alleged malpractice was committed, 3 not mal-practice cases.)		

Discrepancy between these totals of 4; these were merely inquiries.

SECRETARY CROWNHART: Mr. President, the Council will meet at eight-thirty tomorrow morning in this room.

PRESIDENT SMITH: Dr. Flynn, Secretary of the State Board of Medical Examiners, is here this evening and would like to talk to us just a few minutes about the work of the State Board. We shall be glad to have Dr. Flynn talk to us at this time.

DR. ROBERT E. FLYNN (La Crosse): I do not desire to take but a very few minutes of your time because I know the hour is late. I should like very much to explain a program which the State Board of Medical Examiners at the present time is attempting to carry out. What success we will have, I do not know at the present time. Our State Board of Medical Examiners is very anxious to raise the standards of medical licentiates in our state. They are proceeding along two definite lines. First, they feel that the present State Medical Practice Act does not cover the requirements they now need to raise the standards, and they are asking the Legislature to make certain changes. We had a Committee appointed about a month ago who met with the Committee on Public Policy and Legislation of your Society with the view of presenting this legislation to our Legislature. I will give in brief a few of those changes. I know the majority of the members do not know much about the Medical Practice Act. Possibly you know as much about it as I did before I came on the Board, which is very little. Having served two years as Secretary of this Board and having made more or less a study of the subject, we are asking for changes regarding the requirements to gain a license to practice medicine. At the present time our state law requires that any man who has completed four years, of eight months each, of work is entitled to take our examination and gain a license. Of course, there are preliminary requirements, such as high school and two years of pre-medical work, but if they have completed four years of eight months each, they are entitled by law to take our examination, which means that regardless of whether they have a diploma or not they can still gain a license, and the license that we issue is a permanent one. We feel that we ought at least to require a diploma from a man taking our examinations because the better medical schools today are requiring at least a fifth year before the diploma is granted. As it stands now, we must grant them a license at the end of four years, giving them a permanent license; they are then entitled to go out and practice whether they ever get a diploma or not.

We feel our state law is sufficient to the extent that the schools are maintaining a higher standard than we are. In our state law we have a chapter dealing with itinerants. Most of you people know who they are.

We think they are quacks. Probably you think the same. Fortunately we have only about four at the present time, but our state law says that our Board must license itinerants. Three or four months ago there was a gentleman from Milwaukee who had passed our State Board and came to my home at La Crosse and said he desired an itinerant's license. I told him I thought he could make his application and I thought the Board would have some discretion in the matter as to whether or not he would be so entitled. He had his attorney with him and his attorney said, "Under the law, I don't believe, Doctor, that the Board has very much discretion in the matter." I was a little taken aback with what he said; I thought the Board had greater authority. I sought an opinion from the Attorney-General, and true enough, the Board has no discretionary power. At our last medical meeting a man came to us with $250 in cold cash, making his application and saying he wanted to become an itinerant practitioner. One of the members asked him what he intended to treat and he said chronic diseases. You know and I know those men are quacks. That is just the class of people we are trying to get rid of. We are asking our Committee on Legislation to try to strike that out of our Medical Practice Act.

We are also trying to make some headway with the foreigners. All you men know since the War there has been a more or less greater influx of foreigners. Under the present law we cannot require that these men be citizens as they do in a great many other states. They are entitled to secure a license the same as you and I. At the present time our Board is postponing examining these men about as long as we can. We are postponing them in this manner: We are requiring that all their credentials be verified by the American Consul on foreign soil. We are also having their credentials translated into English. We are taking every precaution we can under the present law because we know that a great many foreigners who have come into our State have come in with fraudulent credentials. We know of several cases where some of these men have received as high as a year and a half credit on medical work for war services. This matter of foreign credentials does not apply entirely to all foreigners, but it does apply particularly to Germany, Austria and Russia. They appear to be the main offenders.

We are asking for a change in our law governing revocation. If you gentlemen have read the law, you know our Board does not revoke a license. We grant it but we cannot revoke it. As a matter of fact, the only way in which we can revoke a license in the State of Wisconsin is to have the Court revoke it. When a man has been brought up before the Court and convicted of criminal abortion or some similar offense that requires a prison sentence, in a great many cases the judge forgets to revoke that license. At the present time we have at least four men in this state who have been criminal abortionists who have served their state sentences and are back again practicing. We have signed complaints in an attempt to have their licenses revoked but up to date we have not been successful because this matter of getting into legal entanglements and going back to the judge to revoke that license is a very difficult matter. Just before I came to Madison I had a letter on my desk which Mr. Crownhart referred to me, about which I wrote to the District Attorney and asked what this man was charged with and what action they were taking. It happened that he had been charged with manslaughter. The District Attorney wrote me immediately saying he had been sentenced to six months but he was sorry the judge forgot to revoke his license. We have to go all over that same thing and get that District Attorney to revoke his license. If he doesn't, at the end of six months that same man comes back into regular practice. So we are asking the Legislature to make every conviction automatically a revocation of license.

The other part of our program which we are attempting and with which a great many of you are familiar, is an attempt to enforce the laws. Every man here knows what an extremely difficult proposition that is, but our Board has gone on record as attempting to make every effort within their power to prevent the various quacks and charlatans and notorious advertisers, unlicensed foreigners and men who are practicing every day in violation of our present Medical Practice Act, from continuing.

In our attempt to do this we have written every county medical society Secretary and have asked him to submit to us a list of all the practitioners in his territory. To date out of 71 counties, with 51 Secretaries, we have heard from 18 Secretaries representing about 21 counties, that is covering a period of 6 weeks. I have been Secretary of a County Medical Society myself and I stand quite ready to make an apology for some of these Secretaries who have not reported because I know their work is not a pleasant one, it is usually a job which is handed to a fellow who doesn't want it, but at the same time you must realize that if our Board is making every effort it is making at the present time, we must have the help of those Secretaries if we are to accomplish anything in the way of results.

I am satisfied, and I am speaking for the Board, that there are at least from 25 to 50 unlicensed men competing with you and me in the State of Wisconsin, men who have never been picked up, men whose credentials have never been reviewed by any examining board. It is only by such effort that we are now trying to exert, asking the various Secretaries to send us all the names of the men practicing in the county, that we hope to accomplish any results whatsoever. In addition to sending this letter out to the various Secretaries we have also sent out letters to some hundred representative physicians scattered throughout the state with the hope that they might help us in some way to cooperate.

You can realize off-hand that this is a tremendous task. Our Board with such meager funds as it has, must have cooperation from the Medical Society at large if it is to obtain any results. We feel that this work is your work just as much as it is our work.

If there are some Secretaries present who have not reported, let me ask, please, that when you do report

those names you give us the full names, not the initials, because it is very difficult to go over our records and find a man by initials because in a registry of over 7,000 names we find very often many men with the same name and we have to be very careful not to say a man is not registered when in reality he is. Again we ask the Secretary to write as carefully as possible because sometimes in the eighteen who have reported some of the names have been hard to read, and in the third place we want all the names given of those who are actually practicing medicine, but in checking up some of the names, for instance in Dane County (I am not referring to this particular Secretary because I am very grateful for the splendid list he did send me) in looking over the list we found a great many men who were Doctors of Philosophy, some who were pharmaceutical chemists, and often to these men who we find are a little irregular we write a definite letter and tell them it is our duty by law to make these investigations and ask them to report why it is that they are practicing physicians because we do not have their names on the registry. We got a letter a few days ago from a certain man in Milwaukee. He said that he had been using the term "Doctor" but he was a pharmaceutical chemist and in the east they had termed him "Doctor," he had never practiced medicine. We wrote 50 or 60 people, some of whom were veterinarians, some dentists, some this and some that and the other. We are glad to investigate those men, no matter what they are, provided at any time they have ever practiced medicine.

I might say that our Board is in session Thursday afternoon of this week. We have called this meeting primarily to consider this matter a little further. President Rodecker is here with us this evening, also another member of our Board who is a Delegate to this House, Dr. Sheehy of Tomah. I think they will gladly corroborate what I have to say. What I want the House of Delegates to know is that so far as the State Board of Medical Examiners is concerned we are willing to go clear through with this entire program if we can be assured of your cooperation. It is a tremendous undertaking. You can realize if there are some two or three thousand doctors, listing each one of them and trying to cull out those who are not licensed and then attempt to produce them later, is quite a job. It is a job from more standpoints than one. All of you have had experience with District Attorneys, possibly, at some time or other, and you know we have to work with the District Attorney and get his cooperation. We will make all the investigations we possibly can, but of course when we report later on for prosecution we have to have hearty cooperation of the District Attorney. That again is where members of the County Medical Society can be of great assistance to us.

In these twenty-one counties which we have investigated to date, we have found about one dozen unlicensed men, not quacks, not charlatans or fakers, but men who are actually practicing without ever having had their credentials reviewed, men who are unlicensed and have never been molested, and some of them may be neighbors of yours and you don't know it. We are going after them and are going to stop them. The only way we can continue to do that work is to have all the other thirty-five or forty Secretaries report to us as soon as possible, and when they do report to us and we do make the necessary investigations, we are going to ask the members of the State Medical Society to pitch in and help us all they possibly can. (Applause.)

President Smith: Don't forget the meeting tomorrow evening at seven o'clock promptly in the Colonial Room.

Motion made, seconded and carried to adjourn.

The meeting adjourned at ten-twenty o'clock.

ADJOURNMENT.

HOUSE OF DELEGATES

WEDNESDAY EVENING SESSION

September 15, 1926

The third session of the House of Delegates was called to order at seven o'clock in the Colonial Room, Hotel Loraine, by the President, Dr. Joseph F. Smith.

President Smith: The first order of business will be the roll call.

Secretary Crownhart: We are taking roll call by the pink slips. According to the slips received there is a quorum present.

President Smith: The next order of business will be report of the Committee on Resolutions, Dr. Egan, Chairman.

Dr. W. J. Egan (Milwaukee): Your Committee on Resolutions, after having been in session during the last twenty-four hours, has considered the resolutions on—

The State Board of Examiners.
Nursing and Nursing Education.
Periodical Health Examination.
Licensure of Foreign Physicians.
Medical Relief in Disaster.
Licensure of Hospitals.
Annual Dues.

These resolutions will be presented for your consideration in the above order.

I will read the first resolution on "The State Board of Examiners."

"*Whereas*, The State Board of Examiners is making every effort to maintain the practice of medicine upon a high level, to weed out all illegal and unlicensed practitioners, and to revoke all licenses of practitioners whenever such revocation is legally indicated, be it hereby

"*Resolved*, That the members of the State Medical Society of Wisconsin pledge their full cooperation through their State and County Society officers to the State Board of Examiners in the latter's effort to safeguard the health of the people of Wisconsin."

I move the adoption of this resolution.

The motion was seconded by Dr. Dieterle of Milwaukee and carried.

Dr. W. J. Egan (Milwaukee): The second resolution has been approved by the Committee on Resolutions, on "Nursing and Nursing Education."

"*Resolved*, That the President of the Wisconsin State Medical Society appoint a committee on nurses and nursing education to investigate and report to the next

House of Delegates the results of its investigation and constructive thought on the nursing question throughout the State; the Committee on nurses can be empowered to confer with the State nursing association, hospitals and other committees having similar objects."

I move the adoption of the resolution.

Seconded by Dr. Powers of Milwaukee and carried.

Dr. W. J. Egan (Milwaukee): I will read resolution number three, on "Periodical Health Examination."

"(1) *Whereas*, A report was made to the House of Delegates of the American Medical Association, 1923, suggesting the conduct of periodic examinations of apparently healthy persons, and

"(2) *Whereas*, This report was prepared by a committee especially selected by the American Medical Association to make a special study of conditions that tend to undermine the health and welfare of the citizens of the United States, and

"(3) *Whereas*, Additional material to the original report has been drafted by a special committee authorized to make such revision, and

"(4) *Whereas*, This revised report has been printed in a manual for general distribution to the medical profession of the United States, and

"(5) *Whereas*, The report published by the officials of the American Medical Association has met with hearty approval by the medical profession and lay public and therefore can be accepted as a wise policy of procedure which if carried out would materially improve the health and efficiency of our citizens in addition to the prolongation of life, and

"(6) *Whereas*, For a long period of time public health officials and the medical profession have waged a campaign against certain types of preventable diseases, and

"(7) *Whereas*, In Wisconsin during the last fourteen years special efforts have been made to reduce the mortality from certain types of sickness with the result that typhoid fever has been reduced about 94%, infant mortality under one year of age has been reduced about 46%, meningitis has been reduced about 73%, diphtheria has been reduced about 58%, scarlet fever has been reduced about 25%, tuberculosis has been reduced about 42%, and whooping cough about 42%, and

"(8) *Whereas*, During the same period of time certain diseases, generally known as constitutional diseases, show an increased mortality, deaths from cancer during the past fourteen years have been increased 42%, deaths from nephritis increased 12%, deaths from heart disease increased 49% and deaths from a number of other preventable ailments increased proportionately, and

"(9) *Whereas*, It is universally known that certain types of these diseases may be due to improper personal, home, and community hygiene, generally known as habits of the individual, and

"(10) *Whereas*, These diseases are slow in their inception and if such abnormal conditions are detected early such conditions may be eliminated entirely or checked in their incipiency, and

"(11) *Whereas*, The periodic examination of apparently healthy persons is advocated for the purpose of improving the personal hygiene of the individual, protecting him as far as possible against contracting disease and advising the client, when certain types of diseases are found, in methods of personal, home and community hygiene that should materially check if not eliminate such diseases, therefore be it

"*Resolved*, That the State Medical Society of Wisconsin, in its eighty-fifth anniversary meeting, whole-heartedly recommends the practice of periodic medical examinations of apparently healthy persons for the attainment of these beneficial results for our citizens."

I move the adoption of this resolution as read.

The motion was seconded by Dr. Bernard Krueger of Cudahy and carried.

Dr. W. J. Egan (Milwaukee): I will read the fourth resolution, on "Licensure of Foreign Physicians."

"*Whereas*, A large number of foreign physicians has been and is now seeking licensure in this country, and

"*Whereas*, Twenty-six states in these United States have regulations requiring either American citizenship or a declared intention to become an American citizen as a prerequisite to licensure, and

"*Whereas*, The State of Wisconsin has no such regulations, and

"*Whereas*, A citizen of another country may apply for and obtain a license in this state without becoming an American citizen, and

"*Whereas*, It may be inimical to the best regulation of the practice of medicine and the conservation of public health to have alien practitioners of medicine resident in any community, therefore be it

"*Resolved*, That it is the sense of the House of Delegates of the State Medical Society of Wisconsin, that it be one of the prerequisites to licensure in this state, for the individual seeking such licensure to have taken out his first naturalization papers. Any license so obtained, however, to be revoked automatically if licentiate be not a fully naturalized citizen within five years of the date of issuance of said license, and be it further

"*Resolved*, That the Committee on Public Policy and Legislation be directed to take such steps as may be necessary to present this matter to the State Legislature of Wisconsin."

I move the adoption of the resolution.

The motion was seconded by Dr. E. J. Fucik of Walworth County.

Dr. W. Halsey (Milwaukee): Wisconsin is surrounded by states that have some such regulation. Illinois demands complete naturalization; Michigan demands first papers; Minnesota, I believe, demands first papers; North and South Dakota and Indiana have some such regulations. I think it behooves us to get behind this thing when it comes before the State Legislature and see that it goes through, otherwise we will be the dumping-ground for all foreign physicians who come over here and do not want to wait one year before they begin practicing. They can begin practicing in Wisconsin upon being licensed by the State Board of Examiners and the State Board of Examiners has nothing to do with the question as to whether they are American citizens or not. It seems to me we ought to do more than

pass this resolution. Every one should make up his mind that when he goes home he will see that his own County Society gets behind this thing and pushes it through. There will probably be some opposition to it in the State Legislature.

The resolution was carried.

Dr. W. J. Egan (Milwaukee): Number five is "Medical Relief in Disaster." This is a plan presented by Secretary West adopted at Dallas which has to do with Medical Relief in time of Disaster, which is nothing but an automatic arrangement to take care of whatever events require medical attention and help during disaster. Therefore, your Committee recommends the adoption of the plan for Medical Relief in Disaster as outlined in the Handbook for the House of Delegates.

I move the adoption of this resolution.

SPECIAL REPORT

Mr. J. G. Crownhart, Ex. Secretary,
State Medical Society of Wisconsin,
Milwaukee, Wisconsin.

Dear Mr. Crownhart:

Please find enclosed the report of the Committee on Medical Relief in Disaster, adopted by the House of Delegates of the American Medical Association at its Dallas session.

This report is officially transmitted for submission to your state association for consideration and action. Copies of the report have been sent to the secretaries of all component county societies for submission to these societies. The county secretaries in your state have been requested to notify you and to notify this office of any action that may be taken by their societies. This was done in order that your office might be relieved of the work involved in submitting the report to the county societies.

Please notify me as promptly as may be convenient of any action that may be taken by your association with respect to this report. If it is the desire of the constituent state associations and their component county societies to adopt the plan proposed, we wish to proceed with the necessary organization and to complete plans for the cooperation of the American Red Cross as soon as possible.

Very truly yours,
Olin West,
Secretary,
American Medical Association.

OW:IL

MEDICAL RELIEF IN DISASTER

It has always been difficult to perfect a smooth-working and efficient organization for relief in times of great disaster when it has been attempted under the stress of the moment. In such times everybody wants to help, but, acting on impulse and under excitement, with appeals for aid coming from every quarter, and without any directing head, even those most anxious to render helpful service are prone to make mistakes that lead to harmful results and to produce complications that make it difficult to organize the machinery necessary for orderly and effective relief. This is true whether applied to efforts for medical relief or to those made for providing for other needs of the victims of disaster. When an organization established for the purpose is first on the ground, or is there soon enough to forestall any serious complications created by well-meaning but untrained volunteer workers, it is always easier to carry out necessary measures for relief in an efficient manner. That is why the House of Delegates approved the report of a Committee on Medical Relief in Disaster, submitted at the Dallas session. This report is submitted to constituent state associations and component county societies in the hope that, through them, organization will be effected within the American Medical Association that will insure adequate medical relief for the victims of disasters, wherever they may strike.

REPORT OF COMMITTEE ON MEDICAL RELIEF IN DISASTER

This is an outline of a plan for immediate medical relief, by the American Medical Association in cases of disaster.

The reason for suggesting this is the confusion and often breakdown that occurs immediately after any large disaster, before the established state and national organizations, which properly take charge of such situations, arrive on the scene. This immediate difficulty is due largely to the fact that, except in the larger centers, there is apt to be no organization or individual with any authority for taking charge of these situations and directing the immediate work of medical relief. The suggestion of this plan has been made by medical officers of disaster relief of the American Red Cross with the hope that through it these immediate difficulties can be overcome and that cooperation with the Red Cross can be made more effective.

The purpose is to provide an organization that can immediately function in the case of disaster by reason of its having a medical man designated in each county of the country who shall be deputized by the American Medical Association to act at once in organizing and directing immediate medical relief. He is to assume direction of medical relief until the properly constituted authorities or other recognized state or national organizations arrive and assume charge. It is not intended that this organization shall take permanent charge or that it shall take over the functions of the bodies provided by the state and federal governments, including the Red Cross. Its function is primarily to furnish immediate medical relief in the interval before the usual organizations arrive. After their arrival, this organization is expected to put itself under their direction or control or cease to function, except in the unlooked for situation where the organizations properly looked to so fail to meet their obligations that independent action is necessary to prevent suffering. It is to be hoped, and it is our expectation, that this organization will be able to cooperate both before and after their arrival with the state and federal organizations for relief, and with the Red Cross.

It is not its function to take charge of railroad dis-

asters or of any other sort of industrial disasters where the corporation involved has its own organization to act immediately in these disasters. The function of this organization, in short, is not to take over medical relief in situations in which organized machinery to take care immediately of disasters already exists. Its purpose is to provide systematic direction for relief only in those situations in which, for the time being, no adequate organization exists for performing this function.

The plan particularly has in mind disasters of such magnitude that they temporarily break down the ordinary machinery of the community for medical relief and call for the sudden mobilization of the medical profession of the community in order to cope with unexpected situations. The necessity for this may arise in a city as well as in a small community.

The essential thing in such a plan is that there should exist potential machinery that can immediately be called on to act in the event of disaster. Disasters such as would call on this organization are fortunately so rare that any special organization that existed for this purpose alone would be very difficult to keep alive because of lack of demand for its services. It would seem, therefore, that the best plan would be to attach this function of disaster relief in each community to one of the regular officers of the constituent societies of the state medical associations. The officers on whom it would seem best to put this responsibility are the presidents of the local societies. They are representative men in their towns and counties, are chosen heads of the profession and, in the nature of things, have its confidence.

The plan, then, would be that the American Medical Association should direct that immediate supervision of medical relief, until taken over by the proper organizations, should be a function of its officers as follows:

In counties: The president of the county medical society. Where more than one county is represented in a single medical society, the director of disaster relief should be the president of this society.

The state director of disaster relief should be the president of the state society.

The national representative of the American Medical Association for disaster relief, it would seem, should be some one who is in the headquarters of the American Medical Association and, who, therefore, could always be reached promptly. And it would seem that the proper officer to represent the Association as director of disaster relief should be the general manager or secretary of the Association, who should act, as far as possible, with the aid and advice of the President of the Association.

The functions of the county or local director of disaster relief would be to assume charge—act as captain—in systematizing, directing and controlling activities in immediate medical relief. He should feel that he is responsible for the direction not only of the local members of the profession but also of volunteers who come in. The great difficulty in these situations is that no one under present conditions feels that he can with propriety assume direction. Under this plan the president of the county medical society not only could with propriety assume direction but should be expected to do so by the members of the profession.

The president of the county or district society should be allowed, if he wishes, to deputize the direction of relief to another member of the profession of his choice. If he does this it should be done formally and publicly, and this act should give his deputy full authority to act in his place.

The functions of the president of the state medical society as state director should be to see that the presidents of the county societies live up to their responsibilities, to cooperate with them in every way possible, and to act as a central officer through whom, in necessity, the national director of medical relief in disaster or any outside organization could take up matters, particularly matters that they desired to bring to the notice of the members of the profession as a whole.

The national director of medical disaster relief should have functions similar to those of the state directors for the country as a whole.

The Secretary or the General Manager of the Association as national director and the presidents of the state societies as state directors should be liaison officers between the national headquarters of the Association, state headquarters and the component county societies.

An immediate function of theirs, in case this plan is adopted, would be to see to it that the presidents of the local societies and the profession of the country become acquainted with this plan of organization, and that in the event of disaster the president of the local society is to be looked to as the director in charge of medical relief until the proper authorities appear to take control.

This information should not only be given on the adoption of the plan, but should be repeated from time to time, until the plan becomes a tradition and in disaster the profession and the public come naturally to expect the president of the county medical society to take immediate charge and to expect the medical profession to act under his direction as long as the immediate necessity exists. To this end, information of this plan should be promulgated repeatedly through the Journal of the American Medical Association, through the American Medical Association Bulletin, through the state medical journals and societies, and by such other means as may be effective.

William Allen Pusey.
W. D. Haggard.
Wendell C. Phillips.

Seconded by Dr. A. J. Gates of Tigerton and carried.

Dr. W. J. Egan (Milwaukee): The next resolution is one which we have discussed in Milwaukee for some time. It is a rather delicate situation and must be covered very carefully. It covers a matter which is liable to a great many abuses. For that reason we want any amount of discussion from the Delegates before you go back to your own County Societies.

The subject is "Licensure of Hospitals" and the original resolution reads as follows:

"*Whereas*, There is at present no control exercised by State Authority over hospitals in Wisconsin, and

"*Whereas*, There should be supervision and inspection of these institutions by proper State Authorities, be it

"*Resolved*, That the State Medical Society of Wisconsin advocates the passage of an act of legislature requiring licensure and supervision of hospitals.

"Your Committee on Resolutions desires to amend this resolution to read, 'and that the President of the Wisconsin State Medical Society appoint a committee to investigate this problem and report to the Council at its meeting in January, 1927.'"

For the purpose of discussion, I move the adoption of this resolution as amended.

Seconded by Dr. E. C. Cary of Manitowoc County and carried unanimously.

Dr. W. J. Egan (Milwaukee): The only reason that the Chairman of your Committee on Resolutions has read these things quickly and rapidly is because of the short time we have to conduct this meeting. We want a great deal of discussion.

The last resolution reads:

"1. *Whereas*, The membership of the State Medical Society has grown steadily to its present record, and

"2. *Whereas*, The State Medical Society has greatly enlarged its scope of activities, and

"3. *Whereas*, On pages 51-53, of the Delegates' Hand-Book for 1926, there are six definite recommendations for increased activity in other fields for the good of the members of the Society, be it hereby

"*Resolved*, That the dues of the Society be set at Ten Dollars per annum."

I move the adoption of this resolution as read.

Seconded by Dr. A. W. Rogers of Oconomowoc and carried unanimously.

Dr. W. J. Egan (Milwaukee): I now move the adoption of the report of the Committee on Resolutions as a whole.

Motion was seconded by Dr. Halsey of Milwaukee and carried unanimously.

Secretary Crownhart: Before we proceed, Dr. Windesheim of Kenosha announces that at this time he is introducing two proposed amendments to the By-Laws. These will lie on the table tonight and be acted upon by the Society tomorrow morning.

The first, for the information of the members, provides that a quorum of the House of Delegates instead of being a majority of all the members registered will be one-fourth of all the members registered. You will realize that in times past we have had difficulty in having a quorum present for the third or fourth session of the House on some occasions. This is to make the actions of the House legal, should we be lacking just one or two members of a quorum under the present provision where a majority is required.

The second amendment suggested by Dr. Windesheim provides that the Councilors shall be elected by their respective Councilor District Societies prior to the annual meeting of the Society, but if in some district the Councilor District Society does not meet and no Councilor is thereby elected, the House of Delegates will have power to elect a Councilor as at the present time.

Both of these amendments will lie on the table until tomorrow morning under the Constitution.

Dr. Powers of Milwaukee introduces a resolution entitled "Resolution on Enforcement of Provisions of the Medical Practice Act":

"*Whereas*, No adequate provision is made for the enforcement of the terms of the Medical Practice Act, it is the sense of the Wisconsin State Medical Society that its proper committee be instructed to confer with the members of the State Board of Medical Licensure to the end that means may be devised for such enforcement.

"*Whereas*, The present State Board has shown initiative and willingness to do all within their power, be it

"*Resolved*, That they receive the commendation of the Society and that officials of the State Society and its component branches be requested to offer their utmost cooperation to the State Board."

Dr. J. W. Powers (Milwaukee): I move the adoption of the resolution.

Seconded by Dr. Gates of Tigerton and carried, unanimously.

Secretary Crownhart: There is a resolution introduced with an explanatory letter from Mr. John D. Jones, Jr., Commissioner of Agriculture of the State of Wisconsin:

"To the President, Officers
and Members of the Wisconsin
Medical Association:

"The Wisconsin Department of Agriculture is charged, under the law, with the responsibility of eradicating tuberculosis from the bovine animals in the State.

"All of the herds in 36 counties have been completely tested for tuberculosis, and all but 8 of the remaining counties have filed legal petitions, asking that area tests be applied. Work is being presently conducted in 12 counties. In excess of three million cattle are maintained on the farms of Wisconsin, over one-half of which have been examined for tuberculosis.

"In view of the magnitude of this project, its importance to the cattle industry of the State and to the health of the consuming public, this department is taking the liberty of offering for your consideration a resolution, which, if adopted, will be of material help and value not only to the department but to the people of the State as a whole.

"Very truly yours,
"John D. Jones, Jr."

"RESOLUTION

"*Whereas*, Wisconsin is the foremost dairy state in the Union, having within its borders more than three million bovine animals;

"*Whereas*, The menace of bovine tuberculosis to the herds of the State and to the health of the citizens of the State has long since been recognized by State officials, agricultural leaders and members of the medical profession, and

"*Whereas*, A comprehensive plan for the eradication of bovine tuberculosis has been adopted by the State and is being vigorously and thoroughly prosecuted, and

"*Whereas*, All of the cattle in thirty-six counties have been tested and tuberculous animals removed, and

"*Whereas*, Special attention has been given by the State to herds supplying milk, cream and other dairy products to the large consuming centers of population, both within and without Wisconsin, and

"*Whereas*, Such efforts on the part of the State have made available a more wholesome supply of milk and its derivatives, thereby promoting the health and vigor of the citizens of the State; be it

"*Resolved*, That the State Medical Society of Wisconsin signify its approval of the Tuberculosis Eradication program in Wisconsin, and urge that it be vigorously prosecuted until bovine tuberculosis shall have been reduced to a satisfactory minimum."

Dr. W. J. Egan (Milwaukee): I move the adoption of that resolution as read.

The motion was seconded by Dr. Gramling of Milwaukee and carried.

President Smith: The next order of business is the report of the Reference Committee on Public Policy and Legislation, Dr. William Halsey, Chairman.

Dr. W. Halsey (Milwaukee): We have the following letter:

"Mr. President:

"Your reference committee on the report of the Committee on Public Policy and Legislation begs to report as follows:

"1. It is recommended that the request for an appropriation of $500 for subscription to Hygeia be granted.

"2. It is recommended that the request for $1,000 for publication of the Fourth Annual Lay Issue as a supplement to the January, 1927, issue of the Journal be granted.

"3. It is recommended that the request for $2,500 as an appropriation for the Press Service be granted.

"4. It is further recommended that these appropriations be included in the budget with the approval of the House of Delegates.

"Your committee wishes further to suggest that the House of Delegates approve the work of the Committee on Public Policy and Legislation and urges that its recommendations on all legislative matters as included in the Handbook be endorsed.

"Your reference committee feels that the Committee on Public Policy and Legislation deserves the hearty support of the House of Delegates and every member of the State Society and it suggests that the Basic Science Law alone is reason enough for the House of Delegates to show their appreciation by a rising vote of thanks to the Committee on Public Policy and Legislation.

"(Signed)
K. W. Doege,
Rolla Cairns,
W. H. Halsey."

Dr. W. Halsey (Milwaukee): I move the adoption of the report.

The motion was seconded by Dr. W. J. Egan and carried.

President Smith: There was a provision in that resolution that we extend to the Committee on Public Policy and Legislation a rising vote of thanks.

A rising vote of thanks was extended to the Committee on Public Policy and Legislation.

President Smith: The next order of business is the report of the Reference Committee on reports of Officers, Dr. A. W. Rogers, Chairman.

Dr. A. W. Rogers (Oconomowoc): I will read the report:

"Your committee on reports of officers composed of G. D. Beech of Adams and T. W. Nuzum of Janesville, and myself wish to report that we unqualifiedly recommend without comment, first, the report of the Executive Secretary, second, the report of the Committee on Health and Public Instruction.

"(Signed) A. W. Rogers."

I move the adoption of the report.

The motion was seconded by Dr. Egan and carried.

Secretary Crownhart: If there are no other resolutions or amendments to the Constitution or By-Laws to be offered, we are under the head of new business.

President Smith: Has anyone any new business to offer?

Dr. R. W. Blumenthal (Milwaukee): I move that the House meet at seven-thirty tomorrow morning.

Dr. E. J. Fucik (Williams Bay): I second the motion.

The motion carried.

Secretary Crownhart: Your Secretary desires to suggest at this time that each Delegate who returns to his county society take the opportunity at the next county meeting of explaining to the members that which has been accomplished at this meeting of the Society. To aid you in this work, your Secretary promises that within one week you will receive a mimeographed summary of everything that you have done. I feel that only in this way may the Delegates carry to the membership as a whole, the entire two thousand, the real work that the Society has accomplished and has promised to accomplish in the future. I think this is very important. When you get this summary, which will be out within a week, I hope you will find the opportunity of presenting it to your membership at the next meeting. While your Secretary is anxious to get out and visit the county societies, it is not possible for him to visit all in any given year, and you can be of very great service to the Society as a whole if you will take this little message back to your county society membership. (Applause.)

The meeting adjourned at seven-thirty o'clock.

ADJOURNMENT

HOUSE OF DELEGATES

THURSDAY MORNING SESSION

September 16, 1926

The fourth session of the House of Delegates was called to order at seven-thirty o'clock by the President, Dr. Joseph F. Smith.

President Smith: The first matter to be taken up this morning is a resolution which came in yesterday on tuberculosis.

Secretary Crownhart: This resolution was a

second part to the resolution introduced last night as a result of the communication from Mr. John D. Jones, Jr., Commissioner of Agriculture. The Secretary understood that this part of it was merely a copy of the first resolution which he read, and did not notice that it was an entirely separate and second resolution.

The resolution as suggested is introduced with the name of Dr. Egan so that it may be before the House. It reads as follows:

"*Whereas*, The tuberculin test is generally accepted throughout the United States as a reliable means of determining the presence or absence of tuberculosis in cattle, and

"*Whereas*, This test has been in use for many years and the methods governing its application have reached a high degree of perfection, and

"*Whereas*, It is desirable that from time to time the accuracy and reliability of the test be checked by scientific authorities, and

"*Whereas*, It is recognized that the State Medical Society of Wisconsin is anxious to take such steps as may be necessary to promote the welfare of the State as a whole and to safeguard to the fullest extent the health of its citizens, and

"*Whereas*, The standing of the Medical Society of the State of Wisconsin for ability and efficiency and disinterestedness in scientific matters cannot be questioned, therefore, be it

"*Resolved*, That the State Medical Society of Wisconsin, through its proper officers, select a pathologist of recognized standing, for the purpose of assisting the Wisconsin Department of Agriculture and the Live Stock Sanitary Board in the tuberculosis eradication program;

"That such pathologist visit abattoirs, located in Milwaukee or Chicago, where Wisconsin reactor cattle are slaughtered; make careful post mortem inspections of carcasses of cattle declared to be tuberculous; secure where possible specimens of lesions found in such carcasses and declared to be tuberculous in nature; make microscopic examination and inoculation tests of the specimens secured, and report the findings to the Secretary of the State Medical Society and to the Commissioner of Agriculture of the State of Wisconsin. It is understood that the survey contemplated should cover a sufficient number of animals to make the report of scientific value."

The resolution is introduced so it may be before the House through the courtesy of Dr. Egan of Milwaukee.

Dr. A. W. Rogers (Oconomowoc): I didn't quite understand who is to meet compensation for this.

Secretary Crownhart: The State Medical Society.

President Smith: I would like to call your attention to the fact that this matter does not come from the State Medical Society. It is an outside resolution. We have very little information in regard to what is behind it and what it means.

Dr. A. W. Rogers (Oconomowoc): I see no reason why the State Medical Society should shoulder the expense. While certainly it is a medical problem, I don't know why in the absence of fuller information we should shoulder such an expense.

I don't know whether a motion to lay the resolution on the table would be in order. If so, I make it.

The motion was seconded by Dr. Cary and Dr. Adams and carried.

President Smith: The next order of business is the proposed amendment to the By-Laws.

Secretary Crownhart: The first amendment would provide that a quorum of the House of Delegates instead of being a majority of those registered, be just a quarter of those registered.

AMENDMENT TO THE BY-LAWS

Amend chapter three, section three, by striking out the words "a majority" in the first sentence and substituting therefor the words "one-fourth."

Dr. G. Windesheim (Kenosha): Isn't it the first business of the House of Delegates at this session to hear the report of the Nominating Committee?

President Smith: If there is no objection we will get the other business out of the way first.

Secretary Crownhart: You are correct, Dr. Windesheim.

Dr. T. J. Redelings (Marinette): I move that we suspend the rules and proceed with the other business.

The motion was seconded by Dr. Windesheim and carried.

Dr. G. Windesheim (Kenosha): Quite a number of years past we have noticed that at some of the meetings of the House of Delegates there is not a quorum present. There was urgent business to be done. The composition of the house was changed a little according to our new Constitution, leaving out the ex-presidents. The ex-presidents sometimes have been practically a large part of the meetings of the House of Delegates. In order to do business legally it was thought it would be best to reduce the quorum. Previously, a majority of the Delegates registered constituted a quorum. A majority of the Delegates registered were very seldom present, so we thought it would be better to reduce that to one-fourth of the number of Delegates registered.

Dr. Rolla Cairns (River Falls): I move the adoption of this amendment as read.

The motion was seconded by Dr. J. S. Moore.

President Smith: The amendment to the By-Laws will require a two-thirds vote and I will ask you who favor the resolution to rise.

The motion carried unanimously.

Secretary Crownhart: The second amendment to the Constitution would provide that Councilors would be elected by the members residing in their own District at a District meeting prior to the annual session of this House of Delegates, or in default thereof, by this House of Delegates as you have been doing in the past.

Dr. E. C. Cary (Manitowoc): I move the adoption of the amendment.

The motion was seconded by Dr. Powers of Milwaukee.

Dr. G. Windesheim (Kenosha): The Secretary yesterday in presenting that amendment said that it was proposed by Dr. Windesheim. It was not my idea. It was the idea of another Delegate, Dr. Fiedler, and

possibly some others. I simply brought the attention of the Secretary to that amendment and the desirability of it. It was mistakenly given as my idea. It didn't make much difference except after the meeting a number of the Delegates came to me and expressed their opinion that it was not a desirable feature, and they in deference to me personally would probably vote for it which they would not do if I did not present the amendment. It made me feel quite good to learn that so many members of the State Medical Society had that confidence in me and that regard for me that they would not vote against a proposition that I put up. I want to thank those men for that feeling toward me. As far as I am concerned, I should like for every one to vote on this amendment just as he feels about it. Think it over and vote as you think best for the benefit of the Medical Society.

Dr. O. A. Fiedler (Sheboygan): I am given credit for this resolution. I spoke to the Secretary yesterday morning about such a resolution and to Dr. Windesheim. Then I came in a little later and the resolution was introduced. I was glad it was. I am in favor of the resolution. I think the welfare of the Society is worthy of more consideration than the welfare of any individual in the Society. I don't believe anyone would vote for or against it on the basis of a personal feeling, but what is best for the State Medical Society. I think that frequently Councilors are elected by a very small number of Delegates. Heretofore, they have been nominated by men outside their respective districts, by men in the House of Delegates, and until a resolution was introduced at Green Bay, I believe, providing that the Councilors should be nominated at least from their own district, they were nominated in the House of Delegates by men from anywhere in the State to represent a group of men in a specific territory.

As a democratic institution, and I assume the State Medical Society is a democratic institution, here is a method of little more direct expression by the men in the district as to the individual who is to represent them in the State Medical Society. I think it has decided advantage. I think the proposed method is more analogous to the Constitution of the Senate than the House of Representatives. I don't care whether I have the credit for the introduction of this resolution or not. When it was introduced it was introduced as Dr. Windesheim's. The Secretary came to me afterwards and said my name should go on that resolution. I am perfectly willing it should.

If we have these district meetings, and I think we should have, and a resolution was introduced two years ago that each district should have one meeting during the year, that meeting will probably bring out a very much larger number of men in that district than will attend the State Medical Society and you will have more nearly an expression of that district as to who is to lead the district than you can possibly get in the House of Delegates where very frequently only one or two members from a whole district are present. I think my district was represented by two men the first session of this House of Delegates. Then we can get a more direct expression of policy from the district to the State Medical Society and I think have a much more representative organization in the Council. This is no reflection on the present Council. I can conceive very readily that the men who are Councilors now will be elected in their respective districts as heretofore if they represent the opinion of the men in their districts. If they do not, then of course it is perfectly proper that someone else should represent that district. I am in favor of the amendment.

Dr. H. W. Powers (Milwaukee): It seems to me obvious that the proposed amendment is an improvement upon the present status so far as the election of Councilors is concerned because it offers the component Councilor Districts an opportunity to elect in their own bailiwick, as it were, their Councilor and if they fail to do it it leaves us the opportunity to do it here. I think it is decidedly better if they do it but I can conceive that there are a number of counties that may fail to get together.

Dr. W. E. Bannen (La Crosse): I heard this amendment read last evening and I believe that the House of Delegates is composed of a man sent from each county society delegated with the power to represent that society in the House of Delegates as picked with considerable care at the county society meeting. I can realize that in some of the counties where the cities are larger and where the organization is more perfected than in the southern and eastern portion of the state, this works out very well. Through the Councilor Districts where there are six or seven counties that are largely agricultural and there are no large towns or cities, at the time of the District Meeting there are a good many doctors who attend that meeting who do not attend the State Meeting. Perhaps from those districts we get 8 or 10 men to the State Meeting, where we will have 150 at the District Meeting. Many of those men know very little of what is going on in the State Society, and what is more they care a darned sight less. The result is that a man who comes here as a Delegate is a man who is interested in the State Society, knows something of the work that it is doing, of its programs for the future, and if these men caucus, as they do, and the Delegates from a district select a man from that district to represent them on the Council, I am absolutely certain that the selection is made with a great deal more care and that a more representative man will be elected to the Council and it will insure greater safety, and that we will not be getting away from democracy. We may be getting away from some of our primary elections, but we will be getting a safe and sane and insured representation on our Council that we won't get from the District Meeting. I believe it is a dangerous thing. It might work out all right, but it is placing a dangerous method in vogue. In these days we have some Bolshevism and some dissatisfaction by men who do not know and don't make any effort to find out; they are just against the government and that is all there is to it. I believe the way we have been electing our members to this Council is a much better way than

to have this amendment adopted. I would ask that the vote on this be to kill the amendment.

Dr. Rolla Cairns (River Falls): I would like to second the remarks of the last speaker. The District Societies, particularly on the west side of the state, know very little about the work of the State Society and probably care very little about the work of the State Society, and such a meeting would know nothing about what men were working in the State Society, what work the Council had done, and what work the Council wants. The election of a man at such a meeting would be largely the rewarding of some personal friendship. I think the nomination on the floor for delegates from the County Societies is much more apt to result in the selection of a man who knows something about it. I personally served for a number of years on the State Council and I know the men on the Council are doing a big work. It is more like the work of a Board of Directors of a large corporation. The men who are capable and serve on that Board for years acquire a knowledge of the working of the Council that it is impossible to get in the first year on the Council. If we find a worthy man, the longer we keep him there the better for our State Society. I think one great tendency would be a shift at every election with a feeling that they want to pass around the honor. That is one thing which we should avoid.

Dr. T. J. Redelings (Marinette): May I hastily endorse Dr. Bannen's remarks? I am taking this opportunity to do it because in former years I advocated the election of the Councilor in the district. It is apparent that our representation is ample and complete, and we had better not throw a wrench into the machinery.

Dr. G. F. Adams (Kenosha): Can't we clarify this problem just a little by asking how many Councilor District Society Meetings have been held this year? We haven't had one in our district.

Secretary Crownhart: For your information, there have been eight Councilor District Meetings, two more scheduled with dates and two more to be held, so that all twelve will be held, but only eight were held prior to the annual session.

Dr. G. F. Adams (Kenosha): There was a time when we used to have a most wonderful District Meeting. Of late the meetings have absolutely blown up and we haven't had any this year. It seems to me that the theory of electing from the district is fine but all the argument is on that side. Whether it is going to work out best or not we don't know. Why not let this go over and let us take it back to our county societies and bring it up a year from now, and we who are here today perhaps will be instructed what our local people would like to do. Just let me suggest that. I am not making it as a motion. Isn't it reasonable? It is new to me. I don't know just what I should do to suit my constituents. We don't have to settle this thing today.

Dr. O. A. Fiedler (Sheboygan): I think there was a time when it was very important that these Councilors should be elected perhaps in the House of Delegates. That was before we had a permanent Secretary. I believe the policy of the State Medical Society now with a permanent Secretary who is practically the Executive Secretary, is such that the policy of this organization is going on just the same. You have to assume that the man who is coming in as a Councilor, in the first place, is in accord with the general principles and that he is a man able to read and to see, with a certain number of the old Councilors left and a permanent Secretary, what that policy is and the advantage of it.

I believe if the election of a Councilor takes place in the District Meeting we will have more District Meetings and that will be one incentive to bring men to the District Meeting. I believe if we continue with a certain number of men on the Council all the time we never will disseminate knowledge of the Medical Society of Wisconsin among the general membership of the State. It is because these men have conducted this affair so long that they know and the rest of the membership does not. I have an abiding faith, too, in the general membership of the Medical Society of Wisconsin. I don't believe any District Meeting is going to send up its poorest man to this Council, but rather pick its best man for the position.

Secretary Crownhart: I want to read the amendment to Chapter IV, Section 1:

"Councilors shall be elected by their respective Councilor district societies at sessions held prior to the annual meeting of this society; or in default thereof, by House of Delegates."

Dr. J. R. Minahan (Green Bay): I think it is the old question that we have had for a long time, that it is dangerous for the masses to rule, that our officers should be picked in a different manner from which they are. I feel up in our District we have an excellent man and I am sure we will return him, but I think it would make a great deal better feeling among the profession of the District if they have a voice in it. I think it is more democratic, and I think when I look back over two years in the Society that the societies are not functioning as they should be functioning. When you try to get them together and to do more work, they pass it off indifferently and say, "What is the difference? We practically have no voice in it anyhow." Give them a voice in it. Let them select their Councilors from the districts in which they reside. I think it will be more democratic and we will have just as good Councilors and it will be a fine proposition.

Dr. G. F. Adams (Kenosha): I just wanted to remark that this would mean that the Councilor meetings would only elect every three years. There isn't an election from a Councilor District every year.

Dr. H. M. Lynch (Washington County): I move the amendment be laid on the table until next year.

The motion was seconded by Dr. Adams and carried.

Secretary Crownhart: In accordance with that the Secretary will send this out to the Secretaries of the several County Societies at least three months in advance of the next meeting, so that all may have the opportunity of discussing it with their Delegates.

President Smith: The next order of business is the election of Delegates to the state meetings. We will

now entertain a motion for nomination of a Delegate to Minnesota.

DR. E. C. CARY (Manitowoc County): I nominate Dr. Stang of Eau Claire.

The nomination was seconded by Dr. Henske of Chippewa Falls and carried.

PRESIDENT SMITH: Next is an official Delegate to the Iowa State Medical Society.

DR. A. W. ROGERS (Oconomowoc): I should like to nominate Dr. Hoyt E. Dearholt of Milwaukee.

The nomination was seconded by Dr. Nott of Racine and carried.

PRESIDENT SMITH: Next is a representative to the Michigan State Medical Society.

DR. A. F. SCHMELING (Columbus): I nominate Dr. Redelings.

DR. T. J. REDELINGS (Marinette): My affiliation is with the Upper Peninsula which is probably more nearly Wisconsin than it is Michigan. It is harder to get to Michigan than it is to get to Atlantic City. We have a separate meeting up there. I decline.

DR. G. D. BEECH (Adams): I nominate Dr. Minahan of Green Bay.

The nomination was seconded by Dr. Powers.

DR. J. R. MINAHAN (Green Bay): I think somebody should be nominated from Milwaukee or Racine. I would nominate Dr. Nott of Racine.

The nomination was seconded by Dr. Redelings.

DR. G. W. NOTT (Racine): I will have to withdraw my name, I don't think I will be able to attend.

Dr. Minahan was elected.

PRESIDENT SMITH: Next is a representative to the State Medical Society of Illinois.

DR. G. F. ADAMS (Kenosha): I would like to nominate Dr. Nott of Racine.

The nomination was seconded by Dr. Redelings and carried.

SECRETARY CROWNHART: We have here the report of the Nominating Committee:

"To the House of Delegates. We, the Nominating Commitee, do respectfully submit below the following nominations:

"President, Arthur W. Rogers, Oconomowoc.

"President-Elect, Dr. J. J. McGovern, Milwaukee.

"Speaker of the House of Delegates, Dr. Karl W. Doege, Marshfield.

"Vice-Speaker of the House of Delegates, Dr. W. T. Lindsay, Madison.

"Delegate to the American Medical Association to succeed Dr. Rock Sleyster, Dr. J. M. Dodd, Ashland.

"Delegate to the American Medical Association to succeed Dr. H. M. Brown of Milwaukee, Dr. H. M. Brown, Milwaukee.

"Alternate Delegates—Dr. F. G. Connell, Oshkosh, to succeed himself; Dr. W. E. Bannen, La Crosse, to succeed himself.

"Place for the next annual meeting, Eau Claire.

"Signed by the entire Nominating Committee."

PRESIDENT SMITH: Are there any other nominations?

DR. R. W. BLUMENTHAL (Milwaukee): I move the adoption of the Nominating Committee's report.

The motion was seconded by Dr. Powers and carried unanimously.

DR. H. W. POWERS (Milwaukee): Do you not require a motion for directing the Secretary to cast the ballot? I move that under suspension of the rules the Secretary be instructed to cast the unanimous ballot of the House for the Candidates mentioned in the report of the Nominating Committee.

The motion was seconded by Dr. Henske of Chippewa Falls.

DR. G. F. ADAMS (Kenosha): Does this vote that is now coming carry the direction where the next meeting shall be?

SECRETARY CROWNHART: It does, Eau Claire.

DR. G. F. ADAMS (Kenosha): Eau Claire is all right so far as I am concerned, but I am impressed that Madison and Milwaukee should be the two centers where the State Medical Society of the State of Wisconsin should always meet, alternately between these two medical centers. We all want to come to Madison and we all want to come to Milwaukee.

PRESIDENT SMITH: All in favor say "aye," opposed "no."

The motion was carried.

SECRETARY CROWNHART: The Secretary wants to emphasize to the Delegates present two things. In the first place there has been no session of this House where we have had such a large attendance. I think it speaks well for the faithfulness of the Delegates and you may be sure that the Secretary is going to call it to the attention of your respective County Medical Societies.

In the second place, I think possibly some Delegates should carry home to their County Medical Societies as part of their message, the new field of work inaugurated by the President of the Society. And I think it would be entirely proper, if I may make this little suggestion, that in closing this session we call upon our present President for a few remarks, and so doing extend to him some appreciation for the time that he has given to the Society and is going to continue to give until his term expires; for financial expense that he has personally borne in traveling from one end of the state to the other time and time again, and for his constant faithfulness to his work. I want to assume the presiding officership for a moment while we call on Dr. Smith. (Applause.)

PRESIDENT SMITH: In the first place I want to express my very deep appreciation of the splendid manner in which the business of this Society has been conducted. I certainly appreciate your faithful cooperation. The work of the House of Delegates has been carried on in a dignified and thoughtful manner and I am sure that the men here have only one idea in mind and that is to carry out such measures as will be for the benefit of the State Medical Society of Wisconsin.

It has been a great pleasure to go out into the state and meet the men in their County and District Societies. I have had a personal contact with these men that I never had before and I have been deeply impressed by

this contact. Everywhere I have gone there has been a spirit of interest and cooperation and with very few exceptions I think the heart and soul of the men in the state is behind the movements and the work of the State Medical Society. I would like the Delegates who have been here and know the things that have been done, to carry this message back to your County Societies and make it a point to discuss with your local societies at your next meeting the things that have been done here. Explain to them why the dues of the society have been raised. I don't believe that very many men in the state will not be in perfect accord once they understand. I believe that very largely these little objections that come up are raised by men who do not know what it is all about. I remember one meeting held a year ago in Clark County, a scattered county where the men are widely apart, this very matter was brought up. All of these men, living in small villages, practically, immediately went on record as favoring an increase of the State Society dues to $15. When the matter is properly put before the men I think there is very little difficulty in getting the proper cooperation and reaction.

Again, I desire at this time to express my deepest and most heartfelt thanks for your hearty cooperation. (Applause.)

Is there any other business to come before the House of Delegates?

Dr. H. P. Greeley (Madison): I understand the new Constitution calls for a Scientific Committee to be elected and not appointed by the President. Has that been done?

Secretary Crownhart: You are quite right about that. We have to elect three members on the Scientific Program Committee for the coming year. I think it would be entirely proper if the House in place of that were to leave it to your President-Elect and then next year elect your three members and thereafter by appointment, one each year. I merely suggest that as a way out of the present situation, where adoption of a new constitution has given no opportunity for consideration of the subject.

President Smith: May I take this opportunity to express my deepest thanks to the local Program Committee and the local Committee on Arrangements? They have worked faithfully and well and the success of this meeting is largely due to the two local committees who have done so much to make this meeting a success.

Dr. E. C. Cary (Manitowoc): I believe we should make a motion to the effect that we extend a rising vote of thanks to the Dane County Medical Society and the Local Committees.

The motion carried.

Dr. G. Windesheim (Kenosha): I think it is no more than right also to extent a rising vote of thanks to the President for his wonderful work this year.

The motion was seconded by various members and carried.

Dr. G. F. Adams (Kenosha): I don't think the Secretary should be overlooked. (Applause.)

A rising vote of thanks was extended to the Secretary.

The meeting adjourned at eight-fifteen o'clock.

ADJOURNMENT.

FIRST MEETING OF THE COUNCIL

HOTEL LORAINE, MADISON

4:00 P. M., Tuesday, September 14th.

Meeting was called to order by Chairman Edward Evans, with the following present: Councilors Redelings, Evans, Rogers, Smith, Connell, Dearholt, Windesheim, Dodd, Harper, and the Secretary. Also present were: Drs. Charles S. Sheldon, Madison; Carl Henry Davis, Milwaukee; Horace M. Brown, Milwaukee; Joseph P. McMahon, Milwaukee; O. H. Epley, New Richmond.

Moved by Dr. Smith, seconded by Dr. Rogers, that the minutes of the January Council as published in the February, 1926, issue of the Journal stand approved. Motion carried.

The Secretary presented a letter from Councilor Mitchell stating that the Pierce and St. Croix county societies had voted to amalgamate and desired approval of the Council for a charter in the joint name. The Chairman called upon Dr. Epley who told the Council of the situation leading to the amalgamation. Moved by Dr. Redelings, seconded by Dr. Windesheim, that the Council revoke the charter of Pierce and St. Croix county medical societies and issue a new charter in the name of the joint society. Motion carried.

The Secretary read a letter from the Bureau of Legal Medicine and Legislation of the American Medical Association requesting action of the Council on measures pending in Congress.

a. Moved by Dr. Dearholt, seconded by Dr. Redelings, that the Council approve the bill now pending in Congress to safeguard the distribution of lye and other caustic substances.

b. Moved by Dr. Connell, seconded by Dr. Smith, that the Council voices its disapproval of the bill now pending in Congress, which if enacted, would seriously curtail the inherent rights of physicians in the prescribing and handling of narcotics.

c. Moved by Dr. Windesheim, seconded by Dr. Harper, that the Council voice disapproval of the bill now pending in Congress which ostensibly is designed to regulate the practice of chiropractic but which in fact would destroy the present medical practice standards in the District of Columbia. Motion carried.

d. Moved by Dr. Redelings, seconded by Dr. Smith, that the Council formally confirm its mail ballot taken in the spring in which the Council voted seven to five that for the present it would take no action with respect to the proposed extension of the Sheppard-Towner Act. Motion carried.

Moved by Dr. Smith, seconded by Dr. Connell, that the proposals for honorary membership be deferred until the January session and that the Secretary be and is instructed to present detailed recommendations at that time. Motion carried.

Dr. Dearholt reported for the committee on medical extension. Moved by Dr. Connell, seconded by Dr. Harper, that the life of the committee be extended to the January meeting of the Council. Motion carried.

Dr. Harper reported for the committee studying periodic health examinations and presented a proposed resolution. After discussion by Drs. Smith, Davis, Dearholt and the Secretary, it was moved by Dr. Dearholt, seconded by Dr. Smith, that the resolution be presented to the House of Delegates with the approval of the Council. Motion carried.

RESOLUTION

(1) *Whereas*, A report was made to the House of Delegates of the American Medical Association, 1923, suggesting the conduct of periodic examinations of apparently healthy persons, and

(2) *Whereas*, This report was prepared by a committee especially selected by the American Medical Association to make a special study of conditions that tend to undermine the health and welfare of the citizens of the United States, and

(3) *Whereas*, Additional material to the original report has been drafted by a special committee authorized to make such revision, and

(4) *Whereas*, This revised report has been printed in a manual for general distribution to the medical profession of the United States, and

(5) *Whereas*, The report published by the officials of the American Medical Association has met with hearty approval by the medical profession and lay public and therefore can be accepted as a wise policy of procedure which if carried out would materially improve the health and efficiency of our citizens in addition to the prolongation of life, and

(6) *Whereas*, For a long period of time public health officials and the medical profession have waged a campaign against certain types of preventable diseases, and

(7) *Whereas*, In Wisconsin during the last fourteen years special efforts have been made to reduce the mortality from certain types of sickness with the result that typhoid fever has been reduced about 94%, infant mortality under one year of age has been reduced about 46%, meningitis has been reduced about 73%, diphtheria has been reduced about 58%, scarlet fever has been reduced about 25%, tuberculosis has been reduced about 42%, and whooping cough about 42%, and

(8) *Whereas*, During the same period of time certain diseases, generally known as constitutional diseases, show an increased mortality, deaths from cancer during the past fourteen years have been increased 42%, deaths from nephritis increased 12%, deaths from heart disease increased 49% and deaths from a number of other preventable ailments increased proportionately, and

(9) *Whereas*, It is universally known that certain types of these diseases may be due to improper personal, home, and community hygiene, generally known as habits of the individual, and

(10) *Whereas*, These diseases are slow in their inception and if such abnormal conditions are detected early such conditions may be eliminated entirely or checked in their incipiency, and

(11) *Whereas*, The periodic examination of apparently healthy persons is advocated for the purpose of improving the personal hygiene of the individual, protecting him as far as possible against contracting disease and advising the client, when certain types of diseases are found, in methods of personal, home, and community hygiene that should materially check if not eliminate such diseases, therefore be it

Resolved, That the State Medical Society of Wisconsin, in its eighty-fifth anniversary meeting, whole-heartedly recommends the practice of periodic medical examinations of apparently healthy persons for the attainment of these beneficial results for our citizens.

It was moved by Dr. Rogers, seconded by Dr. Smith, that the life of the committee be extended to the January meeting of the Council and during the interim the Secretary be and is instructed to urge upon all county medical societies the advisability of devoting a meeting to the discussion of periodic health examinations. Motion carried.

Secretary presented a newspaper clipping forwarded by a member with the complaint that it was in violation of medical ethics. The Chairman ordered the clipping read. Moved by Dr. Redelings, seconded by Dr. Harper, that the Chairman be instructed to write the member concerned asking for an explanation. Motion carried.

Moved by Dr. Dearholt, seconded by Dr. Rogers, that the Council adjourn to call of the Chairman. Motion carried.

SECOND MEETING OF THE COUNCIL

Wednesday, September 15th

Council called to order by Chairman Evans, with Councilors Dearholt, Cunningham, Dodd, Windesheim, Harper, Smith, Stang, Evans and the Secretary present.

Secretary stated that no further business was before the Council. Moved by Dr. Dearholt, seconded by Dr. Harper, that the Council adjourn to call of Chairman. Motion carried.

THIRD MEETING OF THE COUNCIL

Thursday, September 16th

Council was called to order by Chairman Evans, with Councilors Rogers, Connell, Redelings, Smith, Harper, Stang, Dearholt, Evans, the Secretary and Dr. Charles S. Sheldon, Madison, present. Moved by Dr. Redelings, seconded by Dr. Harper, that Council approve the appropriation of the House of Delegates for the purpose of holding a Secretary's conference in Milwaukee on the day prior to the meeting of the Council in January, 1927. Motion carried. There being no further business the Council adjourned subject to call of Chairman.

FOURTH MEETING OF THE COUNCIL

Thursday, September 16th

Council was called to order by Chairman Evans at 10:30 P. M., with Councilors Rogers, Connell, Redelings, Smith, Harper, Stang, Dearholt, the Secretary, and Dr. Charles S. Sheldon, Madison, present.

The Secretary reported that he had been called before a meeting of the State Board of Medical Examiners that

afternoon and that the Board had inquired into what way the Society would take specific action in view of two resolutions passed by the House of Delegates. The Board suggested that they needed an extra stenographer for a period of from two to three months; that they desired additional publicity in the Journal; that they desired immediate cooperation that they might have a report from every secretary in the state, setting forth the names of all practicing medicine, surgery and osteopathy in their respective society boundaries; that up to and including the sum of $2,500 they would match any appropriation made by the Society to the Board for the purpose of law enforcement; and it was further suggested that a bill be introduced in the next legislature appropriating the sum of $10,000 a year to the Board for the purpose of law enforcement.

Moved by Dr. Cunningham, seconded by Dr. Smith, that answer of Council be drawn by the Chairman of the Council, the President of the Society, the President-Elect and the Secretary; that it be submitted to each Councilor for approval and immediately thereafter forwarded to the Board. There being no further business the Council adjourned sine die.

J. G. Crownhart,
Secretary.

Approved:
Edward Evans, Chm.

Council on Physical Therapy of American Medical Association; Report on Present Status of Physical Therapy

Physical therapy is a term employed to define the treatment of disease by various nonmedicinal means. It comprises the use of the physical, chemical and other properties, of heat, light, water, electricity, massage and exercise. There are certain definite indications for the use of some one or a combination of several of these physical agencies in the treatment of disease, but to depend on these agencies solely, to use them in lieu of better proved methods, or to employ them without having first thoroughly studied the patient from the standpoint of diagnosis, is harmful practice.

Some physical agencies may be used on the theory that "they will do no harm and may do some good." The psychologic element in their use impresses the patient, usually beneficially, but occasionally to his detriment. The use of a certain method may become a habit with the patient, the physician or the technical assistant, so that the course of treatment is prolonged unduly. Again, manufacturers' agents—salesmen absolutely untrained in medical science—visit physicians, extolling the virtues of special physical apparatus, making unfounded claims as to curative values, and emphasizing the money-making powers of these methods of treatment.

Physical therapy came into its legitimate place in medicine during the World War. Today it is gradually taking its place with the usual medical and surgical procedures. But unless we guard against bad habits in its usage, against allowing it to replace careful diagnostic measures followed by well defined but less spectacular methods of treatment, and especially, unless we guard against its insidious tendency to make its master an easy living, physical therapy may lead into dishonest practice or quackery.

The physical measures that have been found to have certain therapeutic value both by long clinical experience and by laboratory research include:

1. *Heat, Natural and Artificial.*—Diathermy, hot dry packs, hot water bottles, electric pads, and the combination of heat with light and of heat with hydrotherapy.
2. *Hydrotherapy.*—Hot and cold packs, hot and cold douches, whirlpool baths, swimming pool.
3. *Light.*—Heliotherapy or sunlight therapy; artificial light, as that from a mercury arc quartz lamp, air or water cooled, a carbon or modified carbon arc lamp, or an incandescent lamp; gamma rays of radium; roentgen rays.
4. *Electricity.*—Galvanic, faradic, and sinusoidal currents, static electricity, ionization and combinations of these.
5. *Massage.*—Manual percussion; stroking, sedative type, brisk kneading type; manipulative as stretching, pulling and corrective.
6. *Therapeutic Exercises.*—Muscle training exercises, passive and active; mechanotherapy, occupational therapy, games.

Physical therapy is at present in a transitional stage. Its use is extending, but it is still violently condemned in toto by some physicians. Experience indicates that a selected combination of physical measures offers the best results in certain pathologic conditions; in other conditions such measures serve as a beneficial adjunct to the usual medical and surgical treatment. Above all, continued treatment by physical measures seems to result in better functional results than when patients are left to their own devices in securing restoration of function.

Many physical measures, however, have served as the chief of the armamentarium of quacks and charlatans in the past. Moreover, with renewed interest in this subject, cultists have adopted physical measures and have made extravagant unscientific claims as to their value. The avidity with which some have seized on physical therapy solely as a means of financial gain has disgusted most conscientious practitioners of medicine.

The council on Physical Therapy feels that the following considerations must receive the most careful attention of the medical profession:

1. Physics, physiology and biochemistry must be called on to dispel the empiricism of the past and to prove the true scientific value of various physical agencies.
2. Physical therapy must be recognized as a definite part of medicine, to be practiced and controlled by graduate physicians. It should be used only as one of the triad of medicine, surgery and physical therapy. It should be prescribed only after careful physical and laboratory examinations of the patient have been made. It should never be prescribed except by a physician thoroughly trained in the use of physical agencies.

The treatment of disease, whether by drugs, surgery or physical agents, belongs solely in the realm of medicine. A physician would not refer a patient to a non-medically trained technician for treatment by either drugs or surgery. Yet many physicians may refer patients to technicians—masseurs, gymnasts or nurses who have received training in physical therapy, or even to members of various cults for physical therapeutic treatment.

Therefore physical therapy must be recognized as a component part of medicine, and patients requiring this type of treatment should be referred only to physicians trained in this specialty. In this way the use of these methods by charlatans will be largely eliminated.

3. Since physical therapy is a definite part of medicine, every medical school should give a thorough training in this subject. The paucity of postgraduate and undergraduate instruction in physical measures in our medical schools has placed the profession at a disadvantage. Many attempts have been made to remedy this situation. A subject as intricate as physical therapy requires more study than a salesman's assertion that the snapping of a switch or the pressure of a button will definitely assuage any pathologic change.

The making of physical therapists by courses of one or two weeks, often reeking with commercialism, must be condemned. The three to six weeks' courses, sponsored by reputable medical schools, are frankly makeshifts, but do serve to show the would-be physical therapist the breadth of the subject. At least they effect the realization that such a period suffices only for establishing the purely mechanical details of technic and the broader physiologic groundwork on which, aided by his medical knowledge and common sense, one may attempt to erect a physical therapeutic superstructure. The remedy is adequate instruction to undergraduates in the medical schools. Courses starting with biophysics should be given in the last three years. In the post graduate schools, more intensive and prolonged courses should be offered. Medical societies should invite physicians specializing in physical measures to give sane, scientific courses in physical therapy to their members. A fair proportion of the scientific programs of medical societies should be assigned for discussion of physical measures of treatment.

4. Persistent, prolonged effort must be made to eradicate the abuses of physical therapy. A physician who has installed a diathermy machine or an ultraviolet ray generator can do good in carefully selected cases with one of these methods. He is not, however, fully equipped to render physical therapy. As a rule it is the careful combination of several physical agencies that gives the best results. Again, physicians must guard against the over-enthusiastic use of new instruments and the treating of patients for prolonged periods by nurses, technicians or office assistants.

The training of technicians should be encouraged, for trained technicians are invaluable to physicians specializing in this field. But technicians should be discouraged from establishing individual plants, even though the major part of the work is referred by physicians.

(Continued on Page XXXIV.)

Attendance, House of Delegates, Madison, 1926*

SOCIETY	DELEGATES	ALTERNATES
Ashland-B-I	M. S. Hosmer, Ashland, 2, 3	J. M. Dodd, Ashland, 1, 2.
Barron-P-W-S-B	D. L. Dawson, Rice Lake	G. A. Larson, Hayward.
Brown-Kewaunee	J. R. Minahan, Green Bay, 1, 2, 3	E. S. Schmidt, Green Bay.
Calumet	F. P. Knauf, Kiel	J. J. Minahan, Chilton.
Chippewa	W. C. G. Henske, Chippewa Falls, 1, 2, 3	H. H. Hurd, Chippewa Falls, 1, 2.
Clark	F. D. Jackey, Thorp	C. L. Treadwell, Withee, 2, 3.
Columbia	A. F. Schmeling, Columbus, 1, 2, 3	H. E. Gillette, Pardeeville.
Crawford	A. J. McDowell, Soldiers Grove, 1, 2, 3	W. W. Coon, Gays Mills.
Dane	W. T. Lindsay, Madison, 2, 3	E. S. Sullivan, Madison, 1.
	H. P. Greeley, Madison, 1, 2, 3	C. G. Dwight, Madison, 1.
Dodge	A. A. Hoyer, Beaver Dam, 1, 2	A. E. Bachhuber, Mayville.
Door	J. Hirschboeck, Forestville	G. R. Egeland, Sturgeon Bay.
Douglas	H. J. Orchard, Superior	G. J. Hathaway, Superior, 1, 2, 3.
Eau Claire & Asso. Counties	H. M. Stang, Eau Claire, 2, 3	B. F. Johnson, Mondovi.
	O. J. Blosmo, Menomonie, 1, 2, 3	F. E. Butler, Menomonie.
Fond du Lac	D. N. Walters, Fond du Lac, 1, 2, 3	A. C. Dana, Fond du Lac.
Grant	J. C. Betz, Boscobel, 1, 2, 3	E. H. Spiegelberg, Boscobel, 1.
Green	L. A. Moore, Monroe, 1, 2	J. F. Manermann, Monroe, 1.
Green Lake-W-A	H. A. Schulz, Ripon, 1, 2, 3	W. E. Buckley, Red Granite.
Iowa	W. J. Pearce, Dodgeville	L. S. Graves, Mineral Point.
Jefferson	H. O. Caswell, Ft. Atkinson, 1	J. F. Dennis, Waterloo.
Juneau	C. C. Vogel, Elroy, 1, 2, 3	
Kenosha	G. F. Adams, Kenosha, 1, 2, 3	F. B. Lansdowne, Kenosha.
La Crosse	W. E. Bannen, La Crosse, 1, 2, 3	E. A. Smedal, La Crosse.
La Fayette	C. F. Lehnkering, Darlington, 2, 3	W. B. Williams, Argyle.
Langlade	J. C. Wright, Antigo, 1, 2, 3	E. G. Moore, Antigo.
Lincoln	W. H. Bayer, Merrill, 1, 2, 3	E. K. Morris, Merrill.
Manitowoc	E. C. Cary, Reedsville, 1, 2, 3	F. E. Turgasen, Manitowoc.
Marathon	D. T. Jones, Wausau	F. C. Nichols, Wausau.
Marinette-Florence	G. R. Duer, Marinette, 1, 2, 3	J. V. May, Marinette.
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	C. Morter, 230 Grand Ave	S. G. Higgins, Wells Bldg.
	J. W. Powers, Majestic Bldg., 1	
	R. W. Blumenthal, 220 W. Water St., 1, 2, 3	J. Dieterle, 141 Wisconsin St., 1, 2, 3.
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Oneida-F-V		
Outagamie	C. E. Ryan, Appleton, 1	
Pierce	Rolla Cairns, River Falls, 1, 2, 3	Geo. M. Dill, Prescott.
Portage	H. M. Coon, Stevens Point, 1, 2, 3	F. R. Krembs, Stevens Point.
Price-Taylor	L. D. Dietrich, Medford	E. B. Elvis, Medford.
Racine	Geo. W. Nott, Racine, 2, 3	C. O. Schaefer, Racine.
Richland	J. S. Booher, Richland Center, 2, 3	George Parke, Viola.
Rock	T. W. Nuzum, Janesville, 1	P. A. Fox, Beloit.
	W. A. Munn, Janesville, 1	W. J. Allen, Beloit.
Rusk	W. F. O'Connor, Ladysmith	H. C. Johnson, Bruce.
Sauk	G. D. Beech, Adams, 1, 2, 3	L. W. Sayles, Baraboo.
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Sheboygan	O. A. Fiedler, Sheboygan, 1, 2, 3	A. J. Knauf, Sheboygan.
St. Croix	L. A. Campbell, Clear Lake	O. H. Epley, New Richmond, 1.
Trempealeau-J-B	C. F. Peterson, Independence, 1, 2, 3	H. A. Jegi, Galesville, 2.
Vernon	W. H. Remer, Chaseburg, 1, 2, 3	W. M. Trowbridge, Viroqua, 1, 2.
Walworth	E. J. Fucik, Williams Bay, 1, 2, 3	M. V. DeWire, Sharon.
Washington-Ozaukee	H. M. Lynch, Allenton, 1, 2, 3	G. E. Savage, Port Washington.
Waukesha	A. W. Rogers, Oconomowoc, 1, 2, 3	U. J. Tibbitts, Waukesha, 2.
Waupaca	F. E. Chandler, Waupaca, 1, 2, 3	T. E. Loope, Iola.
Winnebago	J. W. Lockhart, Oshkosh, 1, 2, 3	S. D. Greenwood, Neenah.
Wood	K. W. Doege, Marshfield, 2, 3	F. X. Pomainville, Wisconsin Rapids.

*There were three sessions of the House; numbers indicate sessions attended. Records compiled from registration slips passed at each session.

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Inquiries.* Any inquiry with reference to pharmaceuticals, surgical instruments or any other manufactured product which you may need in home, office, sanitarium or hospital, will be promptly answered. Address all inquiries to Wisconsin Medical Journal, or write direct to Cooperative Medical Advertising Bureau, 535 North Dearborn Street, Chicago, Illinois. The Bureau is equipped with catalogues and price lists and can supply information by return mail.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

MEDICAL DEFENSE

WERE an insurance company to offer to guarantee physicians that they would never have a malpractice suit, we venture to say that their policy holders would number every physician in the land. Obviously no such guarantee can be made but we use the illustration to emphasize the fact that no physician is exempt from the possibility of a liability claim. The suit generally comes out of a clear sky, it comes to the greatest as well as to those less widely known; and like lightning, it has been known to hit the same place more than once.

The State Medical Society of Wisconsin for many years has offered a type of defense restricted to members, which has repeatedly proved its value. For a fee of $2.00 the Society offers to the member the advice and services of its legal counsel from the time the civil action is threatened to the time it is settled,—through an appeal to the State Supreme Court, if that be deemed necessary.

The advantages of this additional form of protection are many. The records show that of 181 cases in 18 years, but 8 have been lost.

No revenue accrues to the Society from this service. Indeed, it has been a source of loss in some years.

We suggest that each member consider this service before forwarding his dues for 1927, for we are convinced that it should recommend itself to every member.

GASTRO-INTESTINAL DISEASE AND THE X-RAY

THE diagnosis in obscure gastro-intestinal disorders calls for every possible method of observation and study, among which the x-ray has become a dependable and necessary aid.

X-ray examination, which is primarily fluoroscopic (with plates for record or confirmation) frequently gives a better understanding as to the relations, and of the function of the viscera than can be learned at exploratory laparotomy; because at the fluoroscopy one has a closer approach to the normal; the patient is unanesthetised, may be placed in a variety of positions, most important the upright, and the abdomen is closed with its intra-abdominal tension not disturbed. At laparotomy the reverse is true, conditions are far from normal; the patient is anesthetised; variations in position are comparatively limited and the abdomen is open, with consequent abnormal intra-abdominal pressure.

As plates are often deceptive and fluoroscopic findings frequently misinterpreted and as exploratory laparotomy is many times indicated, as a court of last resort in diagnosis, the fluoroscopy and the exploratory should supplement one another and each will be more valuable if carried out by the same individual.

Fluoroscopy of the esophagus is analogous, in a way, to digital rectal examination and is equally valuable in detecting early malignancy. Disease of the stomach, pylorus and colon are often routinely searched for under the x-ray; but abnormalities of the duodenum beyond the bulbar and duodeno-jejunal junction should be looked for more frequently.

The present development of our understanding of gastro-intestinal disease is a result of progress through the following stages:

First: Autopsy: i. e. study of dead anatomy.

Second: Laparotomy: i. e. observation of living anatomy under abnormal conditions.

Third: X-ray examination: i. e. observation of living anatomy and physiologic activities under more nearly normal conditions, and

Fourth: Chemical analysis of secretions and excretions, which give a further insight into physiological function and mal-function.

In the study of difficult gastro-intestinal cases we may, with profit, imitate the precise methods of the modern urologist.

Routine urinalysis prompts equally routine analysis of the stomach and duodenal contents and also of the stool.

Tests for renal function are quite reliable; gastric, hepatic and pancreatic functional tests are not so well developed, but are being improved and will prove helpful.

Cystoscopy finds its prototype in esophagoscopic and sigmoidoscopic examinations.

The advantages that may be derived from the use of the urethral and ureteral catheters may be similarly achieved by stomach and duodenal tubes.

The x-ray is equally valuable in each tract, cystograms and pyelograms are imitated by

cholecystograms and observations of esophagus, stomach, duodenum and bowel after barium meals and enemata.

Errors will be diminished if this gastro-intestinal x-ray examination is always complete. X-ray pictures of stomach without continued observation of the transit of the meal through the bowel is not only a lost opportunity to learn, a waste of clinical material, but in a certain number of cases will lead to error, mistaken diagnosis; likewise, observation of a barium enema will be more frequently correct if controlled by a meal.

In differentiating between supra- and infra-diaphragmatic lesions or in recognizing early ileus, the x-ray may be of greatest value.

The x-ray picture is that of a shadow which is easily distorted; alone it is often insufficient to justify a diagnosis, but in conjunction with history, physical examination and clinical laboratory findings, it will frequently cinch the diagnosis.

F. G. C.

HEART FAILURE WITH NORMAL RHYTHM

THE focusing of attention upon the heart has brought out within the past few years a number of important facts which have helped in the understanding of the mechanism of heart failure. The conception that the really important factor in heart failure is the muscle and not the various valve defects we owe to Sir James Mackenzie. However loud the murmurs they do not necessarily indicate a weak heart, nor a heart that must be treated with medicine, especially digitalis.

We are accustomed to look upon heart failure as a condition accompanied by irregular and rapid pulse, edema, dyspnea and cyanosis. While this is the usual picture there is a very important exception to this to which Parkinson and Clark-Kennedy* have recently called attention.

Heart failure with normal rhythm has been recognized for some time but it does not seem to be as widely known as it should be. It is not the common form, yet it is not so rare that every practitioner will not have an opportunity to see it in some of his heart cases. The authors searched several of the London Hospitals for two years and found 100 cases about half of which were autopsied. They excluded from their series all cases of acute cardiac disease with fever and all patients below 20 and over 70 years of age. Their article is too long to be completely abstracted here, but certain of their conclusions are of particular interest and importance.

These cases had heart failure with perfectly normal pulse. Practically all had edema and dyspnea. Cardiovascular hypertrophy with high blood pressure accounted for 23 cases, cardiovascular syphilis for 20 cases, and chronic pulmonary disease for 19 cases. Not all the cases of high blood pressure showed a fall in pressure with the onset of heart failure but the majority did show it. There was transient auricular fibrillation with consequent irregular pulse in only three of the high pressure group. Further the average pulse rate in this group, although heart failure existed, was 97. It was 92 in the syphilitic group, 103 in the chronic pulmonary group and only 105 in the 7 cases of the chronic rheumatic group. This last group is particularly interesting as we are not accustomed to consider heart failure in rheumatic cases apart from auricular fibrillation.

Pulsus alternans was commonest in the high blood pressure group and of equal frequency in the syphilitic and chronic pulmonary groups. It was not encountered in the rheumatics. The authors consider it as an indication of cardiac exhaustion rather than of cardiac disease itself. Auricular fibrillation is very uncommon in syphilitic hearts; it is practically never encountered in subacute bacterial endocarditis.

One of their conclusions is worth quoting in full. "The prognosis in failure with normal rhythm is less favorable than in the corresponding degree of failure with auricular fibrillation. In the latter the failure is in part due to the disorder of rhythm and consequent ventricular tachycardia, one or both of which can receive adequate treatment, whereas in failure with normal rhythm the cause (often extra-cardiac) has by itself led to failure for the relief of which no specific therapy is available, unless antisyphilitic."

Such careful studies as this one emphasize how necessary it is for us to be ever on the watch for the unusual in medicine. Heart failure is now a common form of death. The latest Vital Statistics put it at the head of all causes of death. It is in the later years of life, 55-65, that failure with normal rhythm is most often encountered. This article is timely and should prove helpful in explaining some otherwise obscure conditions.

—L. M. W.

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*John Parkinson and A. E. Clark-Kennedy, Quart. Jour. Med., No. 74, 113, 1926 (Jan.).

THE PRESIDENT'S PAGE

Joseph F. Saint

THE COUNTY NURSE

From time to time one hears complaints regarding the work of county and other public health nurses. These complaints come chiefly from members of the medical profession in various parts of the state and generally relate to the over-zealousness of the county or city nurse in the matter of making provisional diagnoses and sending patients out of their own localities to state or other public institutions for treatment when, in many instances, all necessary treatment for such patients could be secured at home. In some instances, the county nurse seems to feel that she is working for the state or other outside institutions. Just how and where so many public health nurses become imbued with this idea does not at present appear.

The county nurse is employed by and receives her salary from the county board of the county in which she contracts to work. The remedy for any such unwarranted assumption of authority or ability on her part lies in a direct appeal to the county board by members of the local medical fraternity. For the purpose of investigating and following to a conclusion any alleged unwarranted assumption of responsibility on her part and also for the purpose of assisting her in the solution of the different problems that arise almost daily in her work with the public, a standing "Public Health Committee" appointed by the county medical society would provide a group of medical men to whom she could go at any time with her problems and whose decisions and actions would have the authority and sanction of the organized medical profession of the community. The public health nurse properly guided and controlled may be made the means of accomplishing a great deal of valuable and constructive work in any community. Allowed to run wild and uncontrolled, she may become the medium through which much that is disorganizing and much that tends toward the establishment of that most unfortunate condition—state medicine—may be made to loom large upon our horizon.

Here again is an instance in which the local or county medical society should assume leadership in local medical matters. The appointment of such a committee as that above suggested should be the means of bringing the laity and the medical profession into a closer sympathy and understanding of medical matters in their respective communities.

LOOKING BACKWARD

I deem it not only an honor but a privilege and a very great pleasure to have had the opportunity during the year now drawing to a close to meet in the state, district and county societies many of the medical men of the state and to discuss with them some of our common problems. The interest and enthusiasm shown everywhere speaks well for the future of Wisconsin medicine.

LOOKING FORWARD

You have chosen for your President Dr. Arthur W. Rogers and your President-Elect Dr. John J. McGovern, two men who are deeply interested in organized medicine and who are willing to give liberally of their time and energy in the advancement of the interests of our Society and our profession. I bespeak for the President, Dr. Rogers, your full hearted support and assistance during the year 1927. I am sure that with your help Dr. Rogers will make the year a memorable one in the history of our Society. I wish to thank you, one and all, for your hearty sympathy and support during the year now passing and to wish you, each and every one, a Merry Christmas and a Happy New Year.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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TERM EXPIRES 1929
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Barron-Polk-Washburn-Sawyer-Burnett	C. C. Post, Barron	D. L. Dawson, Rice Lake.
Brown-Kewaunee	F. J. Gosin, Green Bay	F. M. Harris, Green Bay.
Calumet	J. A. Schmidt, Brillion	H. C. Krohn, New Holstein.
Chippewa	C. B. Hatleberg, Chippewa Falls	W. C. Henske, Chippewa Falls.
Clark	F. D. Jackey, Thorp	F. P. Neis, Thorp.
Columbia	A. F. Schmeling, Columbus	H. E. Gillette, Pardeeville.
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Dane	Louis Fauerbach, Madison	Hans H. Reese, Madison.
Dodge	J. F. Brown, Waupun	A. A. Hoyer, Beaver Dam.
Door	John Hirschboeck, Forestville	T. C. Proctor, Sturgeon Bay.
Douglas	V. E. Ekhiad, Superior	E. E. Carpenter, Superior.
Eau Claire and Associated Counties	G. W. Beebe, Eau Claire	H. M. Stang, Eau Claire.
Fond du Lac	M. M. Scheid, Rosendale	D. N. Waiters, Fond du Lac.
Grant	E. C. Howell, Fennimore	M. B. Glasier, Bloomington.
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Green Lake-Waushara-Adams	B. E. Scott, Berlin	A. J. Wiesender, Berlin.
Iowa	A. D. Brown, Mineral Point	M. W. Trentzsch, Highland.
Jefferson	W. C. Becker, Watertown	A. C. Nickeis, Watertown.
Juneau	C. A. Vogel, Elroy	A. T. Gregory, Mauston.
Kenosha	W. C. Stewart, Kenosha	H. A. Binnie, Kenosha.
La Crosse	Sigurd Gunderson, La Crosse	N. P. Anderson, La Crosse.
La Fayette	W. W. Peck, Darlington	S. A. J. Ennis, Shullsburg.
Langlade	E. G. Bloor, Antigo	J. C. Wright, Antigo.
Lincoln	E. K. Morris, Merrill	W. H. Bayer, Merrill.
Manitowoc	W. G. Kemper, Manitowoc	M. P. Andrews, Manitowoc.
Marathon	E. M. Macauiy, Wausau	J. M. Freeman, Wausau.
Marinette-Florence	T. J. Redelings, Marinette	M. D. Bird, Marinette.
Milwaukee	S. J. Seeger, Milwaukee	E. L. Tharinger, Milwaukee.
Monroe	H. B. Johnson, Tomah	H. H. Williams, Sparta.
Oconto	C. W. Stoelting, Oconto	C. J. Ouellette, Oconto.
Onelda-Forest-Vilas	C. D. Packard, Rhinelander	I. E. Schiek, Rhinelander.
Outagamie	C. Reineck, Appleton	E. L. Bolton, Appleton.
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Portage	G. H. Lawrence, Stevens Point	F. R. Krembs, Stevens Point.
Price-Taylor	E. A. Riley, Park Falls	J. D. Leahy, Park Falls.
Racine	H. B. Keland, Racine	Susan Jones, Racine.
Richland	H. C. McCarthy, Richland Center	G. Benson, Richland Center.
Rock	E. B. Brown, Beloit	G. K. Wooll, Janesville.
Rusk	L. M. Lundmark, Ladysmith	H. C. Johnson, Bruce.
Sauk	H. J. Irwin, Baraboo	Roger Cahoon, Baraboo.
Shawano	A. J. Gates, Tigerton	C. E. Stuhenvoll, Shawano.
Sheboygan	A. J. Knauf, Sheboygan	Howard Curl, Sheboygan.
Trempealeau-Jackson-Buffalo	H. A. Jegi, Galesville	R. L. MacCornack, Whitehall.
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Walworth	A. M. Leland, Whitewater	Carroll Rice, Lake Geneva.
Washington-Ozaukee	C. A. Balkwill, Grafton	A. H. Heidner, West Bend.
Waukesha	Thomas Miller, Oconomowoc	J. F. Wilkinson, Oconomowoc.
Waupaca	T. E. Loope, Iola	A. M. Christofferson, Waupaca
Winnebago	S. D. Greenwood, Neenah	R. H. Bitter, Oshkosh.
Wood	J. C. Hayward, Marshfield	V. A. Mason, Marshfield.

SOCIETY PROCEEDINGS

BARRON-P-W-S-B

The regular monthly meeting of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society was held at Barron on Tuesday, November 23rd, at 2:00 P. M. Dr. J. A. Riegel, St. Croix Falls, presented a paper on "Cerebro-Spinal Fever;" Dr. Frank Whitmore, St. Paul, spoke on "Injuries to the Skull and Vertebra," and Dr. C. C. Chatterton, St. Paul, on "Osteomyelitis." Dr. A. N. Nelson of Clear Lake also discussed a paper. New officers for the ensuing year were elected at this meeting. The B-P-W-S-B Society have enjoyed splendid programs during the past two years which, in a large part, have been due to the active chairman of the Program Committee, Dr. I. G. Babcock, Cumberland.

—D. L. D.

CHIPPEWA

The Chippewa County Medical Society had their last meeting of the year and the election of officers on Tuesday, November 16th, at the Rutledge Charity Building. Dr. C. B. Hatleberg was elected president and Dr. Wm. C. Henske, secretary-treasurer.

Following the election of officers a debate ensued upon the milk situation in Chippewa Falls. It was brought out that Chippewa Falls, although first in the "Better Cities Contest" of last year, did lose several points due to the fact that it had no proper regulation of the milk supplied to the children of the city. Therefore, two resolutions were drawn up and unanimously recommended that they be given to the health officer who would in turn place them before the city council. The resolutions follow in brief: A recommendation that all milk and cream sold in Chippewa Falls should be pasteurized and a resolution that all milk sold should come from tuberculin tested cows.

Two papers were presented, one by Dr. C. S. McVicar, Mayo Clinic, on "Diseases of the Liver," and another by Dr. H. Z. Giffin, Mayo Clinic, on "Diseases of the Blood."

The following physicians were present at the meeting: Drs. Ellenson, Field, McHugh, McCarthy, Williams, Hurd, Schwartz, Hatleberg, Kelley, and Henske of Chippewa Falls; Drs. Cunningham, Cadott; Larsen and Cooper, Colfax; Trankle and Frontier, Bloomer; Stang and Stoland, Eau Claire.—W. C. H.

EAU CLAIRE AND ASSOCIATED COUNTIES

It may be of interest to the readers of the State Journal and the secretaries of the various county societies to know what the Eau Claire & Associated Counties Society has accomplished the past year.

The membership at the present time is sixty and the average attendance at the meetings is thirty-five. The programs have consisted of papers by non-members, doctors of prominence from clinics and teaching centers. The meetings are held on the last Monday of the month.

In January, the meeting was held at the Eau Claire tuberculosis sanatorium and the speakers of the evening were Mr. Richard Loether, Chairman of the County Board which controls the hospital, and Dr. Frank Drake of the Wisconsin Anti-Tuberculosis Association of Milwaukee.

It was indeed very interesting to have Mr. Loether present; it not only gave him an insight into the work that the various doctors are doing at the hospital but also stimulated closer friendship between the county board and the interests of the medical profession.

February. The meeting was held at the Eau Claire Hotel. Dr. Damon A. Brown of the Jackson Clinic, Madison, Wisconsin, gave a very interesting paper on "Hexylresorcinol in Urinary Tract Infections." This was followed by "Observations on Stomatitis" by Dr. Barlow, also of the Jackson Clinic.

March. Rev. Frank E. Wilson, Rector of the Episcopal Church, Eau Claire, gave a very interesting talk on the relations of the clergy and the doctor in regard to the sick. Atty. Glen C. Linderman of Eau Claire spoke on the relations between the lawyer and the doctor, with special reference as to the status of the Workmen's Compensation Act.

April. Dr. Harold E. Richardson of the St. Paul Clinic gave a very instructive paper on "Points of Practical Importance in Relation to the Heart." Dr. W. C. Carrol, Chief Surgeon with the St. Paul Clinic, gave a talk on "Recent Developments in Gastric Surgery" with lantern slides.

May. The program consisted of a paper by Dr. E. M. Medlar of the University of Wisconsin, on "Renal Tuberculosis, Pathological Evidence of its Healing," illustrated with lantern slides. Dr. C. R. Bardeen, Dean of the Medical School, gave a brief history of the medical education, taking it through the different decades with the development of the four-year medical course at the University of Wisconsin. Dr. R. C. Buerki, Manager of the Wisconsin General Hospital at Madison, outlined the policies and activities of that institution.

June. This meeting was held at the Eau Claire Country Club. There were sixty-eight members and guests present. A special entertainment was provided for the evening at the dinner hour and a golf tournament was held in the afternoon. Dr. W. R. Ramsay of St. Paul gave a talk on "Some of the Newer Aspects of Vaccine and Foreign Protein Therapy in Children." Dr. Harry P. Ritchie gave a discussion on the "Newer Phases of Child Surgery," illustrated with lantern slides.

July. Meeting was held at the Eau Claire Hotel and Dr. Joseph F. Smith, President of the State Society, gave a very interesting talk on "Periodic Health Examinations."

August. The meeting was held at the Eau Claire Hotel. Dr. Carl S. Harper of the Jackson Clinic gave a paper on "Sterility with Demonstrations of the Ruebin Test with Apparatus." Dr. Ervin Schmidt, Professor of Surgery, University of Wisconsin, gave a paper on "Differential Diagnosis of Gall-Bladder Disease," illustrated with case histories.

September. The meeting was dispensed with due to

the fact that the Tenth District meeting was held a week later. Report of that meeting was given in the last Journal.

October. The meeting was held at the Eau Claire Hotel. Dr. P. P. Vinson of the Mayo Clinic gave a paper with lantern slides on "Esophagus Disease." Dr. Gilbert J. Thomas of the University of Minnesota and the Nicollet Clinic discussed "Some Practical Points in the Treatment of Hypertrophy of the Prostate."

November. Dr. R. M. Wilder of the Mayo Clinic gave a clinic in the afternoon from 4:00 to 6:00 P. M. on diabetes, illustrating its various phases. There was a dinner in the evening at the Eau Claire Hotel with a paper and a general discussion following.

December. Election of officers will be held.—H. M. S.

FOND DU LAC

Physicians from the Fox River Valley and other sections were guests of the Fond du Lac County Medical Society at a meeting held at Hotel Retlaw, Fond du Lac, on December 9th. Dr. F. J. Gaenslen, Milwaukee orthopedist, was the principal speaker of the evening. Dr. Gaenslen also conducted a clinic for the crippled under the auspices of the Fond du Lac county committee of the Wisconsin Association for the Disabled at the Vocational School.

LINCOLN

The annual meeting of the Lincoln County Medical Society was held at the New Holy Cross Hospital on Thursday, November 18th. Dinner was served at 5:30 and was followed by the business meeting. Dr. E. W. Miller, Milwaukee, chief surgeon of the Milwaukee Railway and Light Company, presented the address of the evening. His subject was a discourse on the various phases of "Industrial Surgery." Dr. Joseph F. Smith, President of the State Medical Society, spoke to the members on "Periodic Health Examinations." Attendance at the meeting included all but three physicians in the county.—W. H. B.

MANITOWOC

Dr. W. G. Kemper, Manitowoc, was elected president of the Manitowoc County Medical Society at the annual meeting held on Nov. 11th. Other officers elected were Dr. Frank Gregory, Valders, vice-president; Dr. M. P. Andrews, Manitowoc, secretary-treasurer; Dr. F. E. Turgasen, Manitowoc, delegate; Dr. E. C. Cary, Reedsville, alternate; and Dr. J. L. Shaw, Manitowoc, censor. The members voted to give honorary membership to any medical man who had reached seventy years.

The meeting was held at Shoto and was preceded by a chicken dinner for the members and their wives, followed by dancing.—M. P. A.

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society met at the Old English Grill, Marinette, Thursday evening, Oct. 28th. Dinner was served at eight o'clock, after which Dr. T. L. Szlapka of Milwaukee presented a paper on "Pernicious Anemia with Special Reference to Early Symptoms and Diagnosis." The local doctors reported on the Tri-State meeting at Cleveland.

On Monday evening, November 29th, the members of the county society met again at the Old English Grill. Dr. Carl Harper of Madison presented a paper with demonstrations on "Posterior Positions of the Occiput."

—M. D. B.

MILWAUKEE

The members of the Milwaukee County Medical Society met at the Medical Arts Building on Friday evening, November 12th. A group of outstanding clinicians from the faculty of Northwestern University Medical School presented the following symposium of physical diagnosis: "Examination of the Heart," Dr. Robert B. Preble; "Examination of the Lungs," Dr. Charles A. Elliott; "Examination of the Abdomen," Allen B. Kanavel; "Important Points in a General Neurological Examination," Dr. Archibald Church.—E. L. T.

OUTAGAMIE

Dr. Arthur E. Hertzler, Kansas City, held a Goiter Clinic (Diagnostic) from 3:00 to 5:00 P. M. at St. Elizabeth's Hospital, Appleton, on November 16th. In the evening the members of the society met at Hotel Conway and following a 6:30 dinner, Dr. Hertzler discussed the subject of "Goiter." Dr. Hertzler is an authority on this subject and the members of the Outagamie County Medical Society felt very much gratified in being able to get him to speak before them.—E. L. B.

PRICE-TAYLOR

At the meeting of the Price-Taylor County Medical Society, held on October 27th, Dr. E. A. Riley of Park Falls was elected president and Dr. J. D. Leahy, Park Falls, secretary-treasurer, for the ensuing year. Other officers elected were Dr. F. W. Mitchell, Ogema, vice-president, and Dr. W. P. Sperry, Phillips, censor.

The physicians and dentists and their wives enjoyed a Hallowe'en dinner served at the hotel.—E. B. E.

ROCK

Dr. W. H. Von Lackum, Rochester, Minn., addressed the members of the Rock County Medical Society and visiting physicians from other cities at the regular monthly meeting held at the Y. M. C. A. in Beloit on October 26th. Dr. Von Lackum is from the Mayo Clinic and spoke on "Systemic Manifestations of the Infected Prostate," which was illustrated with lantern slides.

A paper on "The Relation of Urology to Central Medicine," was presented by Dr. Victor D. Lespinasse of Chicago.—G. K. W.

TREMPEALEAU-JACKSON-BUFFALO

The annual meeting of the Trempealeau-Jackson-Buffalo County Medical Society was held on Wednesday afternoon, November 10th, at Galesville. Dr. Edward Evans, district councilor, spoke on "X-Ray Diagnosis of Gastro-Intestinal Disturbances," and Dr. E. A. MacCornack, Peru, South America, gave a talk on "Infant Mortality in Peru," which was accompanied by slides.

—R. L. MacC.

VERNON

Three Madison physicians addressed the members of the Vernon County Medical Society at Viroqua on Wednesday, November 17th. Dr. Carl S. Harper, Jackson Clinic, discussed the subject of "Obstetrics;" Dr.

Elmer L. Sevringhaus, Wisconsin General Hospital, spoke on "Nutrition," and Dr. R. L. McIntosh presented a paper on "Treatment of Skin Diseases."

—W. H. R.

WAUKESHA

Dr. A. J. Hodgson, Waukesha, entertained the members of Waukesha County Medical Society at his home on Wednesday afternoon, November 3rd. Following a short business meeting, Dr. L. M. Warfield, Milwaukee, spoke on "Early Manifestations of Diseases of the Cardiovascular System, Endocrine System and Metabolism Encountered in the Periodic Examination of the Apparently Healthy." This was followed by a discussion, opened by Dr. J. B. Noble of Waukesha. In conclusion of the program, Dr. Hodgson gave a talk on "Some of My Experiences Abroad."

It is the aim of the Waukesha County Society to conduct a review on the subject of Periodic Health Examinations, which will result in greater diagnostic proficiency so that they may become more accurate in detecting disordered human mechanism before subjective symptoms manifest themselves to the individual. During the next five meetings of the Society a plan has been formulated to consider the early manifestations of disease in the following groups:

1. Diseases of heredity, childhood and acute and chronic infectious diseases.
2. Diseases of the cardiovascular system (blood, heart, lung, kidney), endocrine system and metabolism.
3. Diseases of industry, diet, personal habits and social environment.
4. Disorders of the mind, emotions and nervous system.
5. Disorders of the reproductive organs of the female.—J. F. W.

MILWAUKEE ACADEMY OF MEDICINE

Dr. Burton R. Corbus, internist, Grand Rapids, spoke before the members of the Milwaukee Academy of Medicine at their meeting on November 9th.

Dr. Charles Zimmermann has given the Academy library a very large and valuable collection of books and rare journals, which he has gathered over a period of years. Dr. G. W. Stevens and Dr. Gilbert Seaman have also contributed valuable books.

Dr. Ernest Copeland has been appointed and has consented to act as a Committee of One on Art. He will pass on all pictures, statuary and other art objects offered the Academy and will direct the placing of these gifts.

On November 23rd the Academy held the second meeting of the month, at which time Dr. Harry S. Gradle, Chicago, spoke on "The Oculo-Cardiac Reflex, an Experimental Study." Discussion was opened by Dr. Louis M. Warfield and Dr. Nelson M. Black, Milwaukee.

Dr. Eugene Smith, librarian, makes the following announcement:

"Arrangements have been consummated with the Milwaukee Public Library to install a branch library in our Room No. 11. This means that our library will be run by a trained librarian having scientific education, speaking German and French and reading these languages as well as Latin, so that the contents of our foreign periodicals will be made useful to all our membership. The library will be open all day and evening with a competent librarian for our assistance.

"New books have been sent us by the State Medical Society. A mahogany typewriter desk, which was much needed, has been presented by Drs. Edwin Henes and Eugene A. Smith. A flat top desk and desk chair are much needed for the Academy office. Who will give them? An Underwood typewriter has been given by Doctors Harlow, Thorndike, Wenstrand, Gilchrist, Hyde and Sivyer of the Medical Department of the Northwestern Mutual Life Insurance Company. Who will give that flat top desk?

"Dr. Henry Ogden has presented us with three autographed, original letters from Sir William Osler. These are framed and will be hung over the shelves which carry Dr. Osler's collected works."—D. E. W. W.

MILWAUKEE OTO-OPHTHALMIC

On Tuesday evening, November 23rd, the Milwaukee Oto-Ophthalmic Society held a joint meeting with the Milwaukee Academy of Medicine at the Medical Arts Building. Dr. Harry S. Gradle, Chicago, presented a paper on "Oculo-Cardiac Reflex, an Experimental Study." The members enjoyed the usual dinner at the University Club which was followed by a business session.—E. R. R.

WISCONSIN UROLOGICAL SOCIETY

Dr. Ira Sisk, Urologist of the University of Wisconsin, called together by invitation a number of men throughout the state who are interested in urological work. The meeting was called for Friday, Oct. 29th, 1926, at the Wisconsin General Hospital, University of Wisconsin, Madison.

A surgical clinic was given in the morning by Dr. Ira Sisk and a review of pyelograms of urological cases. A general discussion followed in the cystoscopic room, before and after the clinic.

A business session was held at 12:30 P. M. The meeting was called to order by Dr. Sisk and the following men elected to office:

Dr. Ira Sisk, Madison, President.

Dr. J. S. Sargent, Milwaukee, Vice-President.

Dr. H. M. Stang, Eau Claire, Secretary-Treasurer.

Dr. Sisk later appointed Dr. W. G. Sexton of Marshfield and Dr. Walter M. Kearns of Milwaukee to act with the president as a Credentials Committee.

It was decided that the society should meet twice a year, in the spring and the fall, and that the fall meeting should be held at Madison, at the Wisconsin General Hospital, preceding one of the important football games. The spring meeting to be held at various cities in the state, changing from year to year, as invitations were received from the various members. Wherever the meeting is to be held, the program is to be given by such members living in that city.

The following program was given in the afternoon:

"Tuberculosis of the Kidney," Dr. E. M. Medlar, Professor of Pathology, University of Wisconsin, Madison; "Primary Tumor of the Ureter," Dr. Hartwick Stang,

Eau Claire; "Tumors of the Urachus," Dr. Sydney K. Beigler, Madison; "Accident Surgery of the Urinary Tract," Dr. James C. Sargent, Milwaukee; Tuberculosis of the Scrotum" (case report), Dr. Wm. S. Beyer, Madison; "Strictures of the Female Urethra," Dr. Ira R. Sisk, Madison; "Gangrene of the Bladder" (review of literature and report of five cases), Dr. Wm. J. Carson, Milwaukee.

11:00 A. M.—Surgical Clinic—Wisconsin General Hospital.

12:30 P. M.—Luncheon—Wisconsin General Hospital.

2:00 P. M.—Scientific Program—Wisconsin General Hospital.

7:00 P. M.—Dinner—Madison Club—Address by Dr. William F. Braasch, Mayo Clinic, Rochester, Minnesota.

The following doctors were present and were considered charter members of the organization:

Dr. Bannen, W. E., La Crosse; Dr. Bourne, N. W., Milwaukee; Dr. Carson, W. J., Milwaukee; Dr. Charlier, J. G., Milwaukee; Dr. Gray, Walter K., Milwaukee; Dr. Gundersen, Adolf, La Crosse; Dr. Hanson, J. W., Milwaukee; Dr. Henken, J. F., Racine; Dr. Jacobson, G. B., Milwaukee; Dr. Kasten, H. E., Beloit; Dr. Kearns, Walter M., Milwaukee; Dr. Mitchell, S. R., Milwaukee; Dr. Murphy, Wm. J., Milwaukee; Dr. Sherwood, M. W., Milwaukee; Dr. Sexton, W. G., Marshfield; Dr. Silbar, S. J., Milwaukee; Dr. Stang, H. M., Eau Claire; Dr. Sisk, Ira, Madison; Dr. Sargent, J. S., Milwaukee; Dr. Wisiol, Erich, Stevens Point; Dr. Brown, Damon, Madison; Dr. Jenner, Albert, Milwaukee; Dr. Richards, Cyril, Kenosha and Racine; Dr. Schneider, John, Oshkosh; Dr. Fletcher, E. A., Milwaukee.

Future members of the society will undoubtedly be limited to men who are devoting most of their practice to urology or decidedly interested in the field of urology, including research workers and teachers. Undoubtedly the organization of this society will stimulate better and more active interest in the field of urology throughout the state.—H. M. S.

NEWS ITEMS AND PERSONALS

Dr. Henry A. Jegi, Galesville, has announced recently that he has associated with him in practice Dr. A. E. Meinert. Dr. Meinert is a graduate from the University of Wisconsin and later from Washington University, St. Louis. Previous to his coming to Galesville he had been connected with Lehigh University Hospital and the Jackson Clinic at Madison. Dr. Jegi established his practice in Galesville nearly thirty years ago and for some time past has been unassisted. He was at one time associated with Dr. Edson Rhodes and later with Dr. G. H. Lawrence.

Dr. M. H. Fuller, Green Bay, has been appointed examiner of the blind and deaf for Brown county by the county board in a recent session. This post is established in accordance with a law enacted by the 1925 legislature requiring the appointment of a qualified physician. Dr. Fuller has taken post graduate work in Berlin, Germany, and Manhattan, and has conducted an eye, ear, nose and throat practice in the Minahan building for the last seven years.

Dr. C. E. Garner, Livingston, has discontinued his practice in that village. He is now at Richland Center visiting his parents but in the near future will take post graduate work in Chicago.

Thirty-one Madison physicians are on the St. Mary's hospital staff in addition to six house doctors who spend their entire time at the hospital. Dr. Joseph Dean is president of the staff, Dr. H. E. Purcell, vice-president, and Dr. R. C. Aylward, secretary and treasurer. The other doctors who are staff members include: Drs. W. J. Bleckwenn, S. R. Boyce, R. E. Burns, H. M. Carter, R. T. Cooksey, J. P. Dean, J. P. Donovan, J. A. E. Eyster, Louis Fauerbach, P. R. Fox, H. P. Greeley, F. J. Hodges, H. C. Johnson, W. F. Lorenz, J. W. Madden, O. F. Meng, R. L. McIntosh, J. V. McKee, W. M. Nesbit, G. H. Robbins, H. H. Reese, E. F. Schneiders, I. R. Sisk, J. C. Sommers, W. D. Stovall, H. K. Tenney, A. R. Tormey, and T. W. Tormey.

The house physicians now serving the institution are: Drs. H. Lawrence, H. M. Walker, Mack Canan, O. E. Esser, H. Y. Fredericks and S. J. Geryotis.

One of the operating rooms of St. Joseph's hospital, Marshfield, is being equipped with the most up-to-date apparatus available due to the generosity of Dr. H. A. Vedder, Marshfield, and Mrs. Alfred Dodge Wilson, of Detroit.

Dr. J. C. Wright, Antigo, reported a happening at the annual meeting of the State Society, Madison, which is probably not equalled by any other physician in the state. At the convention with him were three young physicians, all of whom were brought into the world under his professional ministrations, and they are practicing in Richland, Grant and Crawford counties.

Rumors that the Wisconsin General Hospital will start a radium institute within a few months were denied by Dr. R. C. Buerki, superintendent of the hospital. He said the idea as yet is only a dream and he thought it would be some time before hospital authorities could convince the state legislature and other governing boards that the plan would be advisable.

"It would take a considerable sum of money to start such a project," said Dr. Buerki. "However, if someone would make us a little present of about $75,000, we would be only too glad to install the system. We would have to have at least a gram of radium in order to start the project. The latest quotation is $70,000 per gram, and besides that we would need an emanating machine which would cost in the neighborhood of $3,000 or $4,000."

The radium itself would not be sent out but only the emanations, which would serve the same purpose, but are quickly expended. By placing the radium in the emanating machine the emanations which it sends out may be collected in capsules, and they in turn would be

distributed to doctors of the state at a minimum cost. By the plan it is hoped to reduce the cost to such an extent that radium treatments soon will be within the reach of the majority of the public.

The Sparta Clinic has announced the addition of Dr. Dean H. Jeffers to its membership. Dr. Jeffers has been practicing at West Salem for a number of years. He received his medical and surgical training at the University of Michigan from which he was graduated in 1916 and the Michigan University Hospital, where he was house physician. Dr. Jeffers will have charge of the department for treatment of eye, ear, nose and throat.

The Clinic is now established in its enlarged and newly equipped offices.

Dr. W. T. Sarles, who for many years was the head of the Sparta Clinic, suffered a severe stroke of paralysis recently. For the past few years his health has been in a precarious condition as a result of several previous strokes, and he was forced to retire from the clinic because of this.

Dr. Dorothy Reed Mendenhall, Madison, addressed mothers of children enrolled in the newly organized Nursery Play school on the development and the physical and mental training of the child in pre-school days.

The importance of the parent's attitude toward the child, the value of a quiet, happy environment, an early sense of property right, and a feeling of self-reliance are all conducive to the more perfect preparation of the young child for his first school experiences, said Dr. Mendenhall. She particularly emphasized the future value to the child of giving him leeway for his imagination and creative instincts in his play.

The Nursery Play school has originated from a feeling by the parents that pre-school years have an importance hitherto little regarded in the future conduct of the child. They feel that one of the greatest benefits of the school is the contact each child has with children of his own age.

Dr. E. P. Crosby, Stevens Point, who was very seriously ill previous to his departure for the Mayo Clinic, Rochester, is reported to be gaining every day and it is believed that he will eventually recover his health.

Dr. Crosby's ailment, of an infectious nature, came upon him almost immediately after he suffered a slight injury to one hand when the rear compartment cover of his car fell upon the hand as he was out on a local professional call. His condition subsequently became serious.

Cases of infantile paralysis in Wisconsin are not nearly so numerous this year as in 1925, according to the report of the State Board of Health. Up to September 1, 1926, there have been only 25 cases reported for this year, 12 of which have been fatal. Also, there have been no epidemics of the disease. During 1925, there were 313 cases of infantile paralysis reported, 61 of which were fatal.

It was recently announced by Dean Irving S. Cutter of the Northwestern University Medical School that Dr. Arthur H. Curtis has been made professor of Gynecology and Chairman of that department at the school, succeeding the late Dr. Thomas Watkins. Dr. Curtis was a former football coach at the University of Wisconsin.

Madison has initiated a lecture course at the Vocational school for mothers of pre-school aged children. This course is, perhaps, the only one being carried on in this country in a practical way. It is more than a coincidence that the lecture course is being carried on at the same time that there are pre-school clinics being operated in the various schools in the city of Madison.

Dr. A. D. Galloway, formerly of Clayton, has purchased the hospital of Dr. H. C. Wiger of Barron.

Dr. Wiger plans to take post graduate work at one of the medical schools this winter.

Dr. J. R. Longley and Dr. G. B. McKnight, Fond du Lac, in the purchase of additional equipment, have established new physical therapy treatment rooms in the Commercial Bank Building.

"Periodic examinations is the keynote of the medical profession today," said Dr. R. M. Kurten in an address at the weekly luncheon of the American Business Club, Racine. "The rising factor in medicine is prevention rather than cure."

Good health formed the chief topics of the Chippewa County Health conference at the city court house recently. The audience was addressed by Dr. H. H. Hurd, county physician, Dr. F. T. McHugh, on "Control of Communicable Diseases in the City;" Dr. V. A. Gudex on "The Prevention of Goiter;" and by Dr. C. A. Harper, State Board of Health, on "Communicable Diseases and Their Control."

Dr. John P. Koehler, health commissioner of Milwaukee, spoke before a meeting of the Wausau Rotarians recently. He said he had found in his experience that many men objected to being told what they must do, and said that he had decided to make his talk on positives and tell men what they should do if they wished to die sooner than they have to and this might gain more consideration from even the most stubborn of men.

Dr. John F. Schneider was chosen as local post commander for the Atley H. Cook Post, American Legion, of Oshkosh. Two candidates, who had previously been named for that office by the nominating committee, withdrew their names when the candidacy of Dr. Schneider was presented and he was the unanimous choice of the electing group.

Dr. Hoyt E. Dearholt, executive secretary of the Wisconsin Anti-Tuberculosis Association, gave an address before the Commercial Club of Menomonie.

Dr. W. G. Sexton, Marshfield, spoke on "Pyelitis in

Pregnancy" at the November dinner meeting of the medical staff of the Mercy Hospital, Janesville. He gave an instructive exposition of the topic and it was well received. At this session two new members were elected: Dr. C. N. Neupert and Dr. S. H. Kuegle.

Dr. Michael Gertz, formerly of Hurley, is now associated with Dr. W. J. Tucker and the Ashland Clinic. Dr. Gertz is a graduate of the University of Wisconsin, receiving the bachelor of science degree in 1923. In 1925 the degree of doctor of medicine was conferred on him at Northwestern University. He served his internship at the St. Louis City Hospital, followed by post graduate work in Chicago.

Dr. Harold M. Coon, associate medical director at River Pines Sanatorium, was operated upon several weeks ago at St. Michael's hospital for appendicitis. He is reported to be well on the road to recovery.

The county board reappointed Dr. M. S. Hosmer as trustee of Ashland county for Pure Air Sanatorium. His term expired on November 15th and the new term, which is for three years, will expire on that date in 1929.

Dr. J. C. Doolittle, Lancaster, is at present in Chicago where he is taking charge of the practice of Dr. O. B. Nugent, who specializes in the treatment of the eye, ear, nose and throat. Dr. Nugent expects to be gone for about four months.

No dollar brings greater returns than the dollar spent for tuberculosis Christmas seals, Dr. T. L. Harrington told the Professional Men's Club recently at the Y. M. C. A., Milwaukee. He said 80,000 adults and children have been examined in Wisconsin since state clinics were established in 1919, and Wisconsin's tuberculosis death rate has decreased 40 per cent since 1908.

Dr. Paul Gatterdam, La Crosse, was elected county physician at a recent meeting of the La Crosse County Board.

Dr. C. W. Rice has announced the opening of offices in the Buntin Building, 719 Pryor Avenue, at Howell, Milwaukee. Dr. Rice formerly practiced at Lake Geneva.

Among Wisconsin physicians who attended the meeting of the Interstate Post-Graduate Assembly of North America, held at Cleveland, October 18th to 22nd, were Dr. T. W. Nuzum, Janesville, Dr. F. W. Van Kirk, Janesville, Dr. R. M. Kurten, Racine, Dr. H. F. Schroeder, Marinette, and Dr. F. J. Wochos, Kewaunee.

Dr. W. W. Bauer, health commissioner of Racine, declined a recent offer to take over the direction of the bureau of communicable diseases of the Chicago Health Department. Dr. Herman N. Bundesen, health commissioner, expressed his regret that he was not able to interest Dr. Bauer in the position.

Dr. C. J. Maercklein has opened an office in the city of Sheboygan. He practiced medicine for a number of years in North Dakota but for the past five years has been at Elk Mound.

The MacCornack Clinic of Whitehall has announced that Dr. N. S. Simons has rejoined the clinic group. The doctor has spent a year in post graduate study in this country and abroad and comes prepared to do work in bronchoscopy and other special work in eye, ear, nose and throat.

Dr. F. P. Dohearty, Appleton, was reappointed county physician by a unanimous decision of the Outagamie county board recently. Dr. C. D. Boyd, of Kaukauna, was appointed sanatorium trustee at this meeting.

The appointment of Dr. M. S. Corlett, Blanchardville, as deputy state health officer by the State Board of Health, with offices at Rhinelander, has just been announced. Dr. Corlett will serve the northern territory formerly in charge of Dr. A. V. de Neveu, who resigned to join the staff of the Milwaukee Emergency Hospital. The new deputy officer will conduct all the health and sanitation work in his territory.

Two Wisconsin urologists spoke before the Chicago Urological Society at the Murphy Memorial on November 23rd. Dr. Wm. J. Carson, Milwaukee, presented a paper on "Dilatation of the Ureter in the Male: Autopsy Findings;" and Dr. Damon A. Brown, Madison, spoke on "Renal and Ureteral Calculi in Childhood: With Case Report."

Dr. Edwin P. Bickler, who has been practicing at Two Rivers for the past few months, has now established his practice at 156½ Villard Ave., North Milwaukee.

MARRIAGES

Dr. E. F. Tierney, Portage, to Miss Bess Jowett, also of that city, on October 25th.

Dr. B. H. Holmes, Racine, to Miss Alice Ruth Mehder, Racine, on November 5th.

DEATHS

Dr. D. C. Whitney, Rice Lake, died at his home on October 21st following a long illness. Dr. Whitney was born at Charleroix, Mich., November 5, 1855. He received his medical education at the National Medical University, Chicago, graduating in 1896. After practicing a short time at Rapid River, Mich., he moved to Rice Lake thirty-one years ago, where he has since resided. He was on the staff of Lakeside Hospital and was health officer and city physician for many years.

Dr. Whitney was a member of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife, two sons and one daughter.

Dr. Frederick Roemheld, Milwaukee, died at his home, 1919 Fond du Lac Avenue, on October 25th. Dr. Roemheld was born in the year 1852 and was a graduate

of Rush Medical College, Chicago, in the year 1886. He was licensed in the state of Wisconsin in 1904. Dr. Roemheld is survived by his wife and three daughters.

Dr. Frederick F. John, Milwaukee, died at his home on October 23rd. Dr. John was born in the year 1863 and was graduated from the General Medical College, Chicago, in 1883. He was licensed to practice homeopathy in the state of Wisconsin in 1900. Surviving him are his wife, a son and a daughter.

CORRESPONDENCE

TO ALL MEMBERS

Mr. and Mrs. George Crownhart wish to thank the members of the State Medical Society of Wisconsin for the silver tray received on the occasion of their wedding, October thirtieth.

Freeport, Illinois, November 17, 1926.

Mr. J. G. Crownhart, Managing-Editor,
The Wisconsin State Medical Journal,
Milwaukee, Wisconsin.

My dear Mr. Crownhart:

We are enclosing information pertaining to the 1927 foreign clinic assemblies of this Association. We believe the physicians of Wisconsin are very much interested in the trip and ask you kindly to give as much publicity as possible.

Assuring you of our deepest appreciation for your kindness, we are

Very sincerely yours,

WPP*MLK W. B. Peck,
Dr. Charles H. Mayo, Managing-Director.
President of Clinics.

NORTH AMERICAN PHYSICIANS ARE INVITED TO VISIT THE CLINICS OF EUROPE AGAIN IN 1927

In May next year a group of physicians with members of their families from the United States and Canada, under the direction of the Inter-State Post Graduate Medical Association of North America, will sail from New York to visit the following leading medical centers of the Old World:

London, Edinburgh, Oslo, Stockholm, Upsala, Lund, Copenhagen, Hamburg, Leipzig, Munich, Strassburg, Heidelberg, Frankfort and Paris.

This will be the third year that foreign assemblies have been conducted under the auspices of this organization. Those of 1925 and 1926 were exceedingly successful and of great benefit to the physicians who took advantage of them. No doubt the 1927 assemblies will meet with equal success.

In including Norway, Sweden and Denmark in the itinerary, the Association is offering the profession an exceptional opportunity to visit and study in some of the finest clinics in the world.

The group of physicians will be limited to a number that can be comfortably accommodated in the clinics which will cover the entire field of medical science.

The price of the trip will be kept as low as possible and yet furnish first-class accommodations. It will be between $1,000.00 and $1,100.00. All physicians who are in good standing in their state or provincial society may register. Further information may be obtained from the Managing-Director, Dr. William B. Peck, Freeport, Illinois, or the Travel Department of the American Express Company, 65 Broadway, New York, N. Y., who have charge of the transportation.

VOTE OF THANKS

MILWAUKEE ACADEMY OF MEDICINE
153 Oneida Street
Milwaukee

October 29, 1926.

Mr. J. G. Crownhart, Secretary,
State Medical Society of Wis.,
153 Oneida Street,
Milwaukee, Wis.

Dear Mr. Crownhart:

A vote of thanks to the State Medical Society and you, its Secretary, for your kindness in supplying us with a secretary for the month of October, was voted by the Council of the Milwaukee Academy of Medicine at their last meeting.

I assure you that this kindness was a great help to us and was very much appreciated.

Cordially yours,

D. E. W. Wenstrand,
Secretary.

FROM PRESIDENT FRANK

THE UNIVERSITY OF WISCONSIN
Madison

Mr. George Crownhart,
153 Oneida Street,
Milwaukee, Wisconsin.

November 8, 1926

My dear Mr. Crownhart:

I want you to know how much I appreciated your letter about my address before the State Medical Society. I am glad that I was able to do something that helped rather than hindered the development of medical education and service in the relation of the medical profession to it and of it to the profession.

With all good regards, I am

Very sincerely yours,

Glenn Frank.

THE RADIOLOGICAL REVIEW

October 27, 1926.

Wisconsin Medical Journal,
153 Oneida Street,
Milwaukee, Wisconsin.

Gentlemen:

Beginning with the January, 1927, issue THE RADIOLOGICAL REVIEW will be published monthly instead of bi-monthly and it will increase its number of pages from 32 to 64.

As you know, this is the only journal devoted to the progress of x-ray and radium from the standpoint of the general practitioner and the specialist in branches other than radiology.

We would appreciate a mention of this extended program for 1927 in your columns.

Thanking you for this cooperation, we are
Sincerely,
Radiological Review Publishing Co.

SOCIETY RECORDS

NEW MEMBERS

Focke, Wm. J., Poynette.
Werra, Martin J., Waukesha.
Nordlander, Thure, Phelps.
Baur, F. J., 644 Greenfield Ave., Milwaukee.
Biller, S. E., 2624 Lisbon Ave., Milwaukee.
Bourne, N. Warren, Milwaukee.
Blair, J. F., 204 Grand Ave., Milwaukee.
Carson, Wm. J., 141 Wisconsin St., Milwaukee.
Margoles, F. C., 760 Lincoln Ave., Milwaukee.
Newberry, C. L., 1275 Holton St., Milwaukee.
Mehl, Hugo F., 1223 National Ave., Milwaukee.
Pierce, D. F., Hales Corners.
Sutter, E. H., Greenfield Ave., Milwaukee.
Schulz, J. H. Alfred, 1042 Teutonia Ave., Milwaukee.
Esser, Oscar J., Madison.
Galloway, A. D., Clayton.

CHANGES IN ADDRESS

Rice, C. W., Lake Geneva, to 719 Pryor Ave., Milwaukee.

Hall, H. H., Webster, to 4931 Walnut St., Philadelphia, Pa.

Edwards, J. B., Stevens Point, to 2105 Keyes Ave., Madison.

Jeffers, Dean, West Salem, to Sparta.

Bowes, J. J., Waupun, to Peoria, Ill.

Brown, J. F., Waupun, to 4945 Buckingham Crt., St. Louis, Mo.

Nearly every department of government has filed a request for an increase of appropriation from the legislature during the coming biennium. A large increase is asked by the University of Wisconsin, because of the mounting attendance. The normals want nearly $1,000,000 more due to a proposed building program. The Conservation Commission is asking for $300,000 more annually to carry on a more complete conservation program. The state Prohibition Department is asking an annual increase from $60,000 to $100,000 annually.

In some quarters it is reported that an effort will be made in the coming legislature to abolish the prohibition enforcement department. Because the people of the state voted two to one in favor of memorializing congress in favor of a modification of the Volstead act so as to permit of the sale of 2.75 per cent beer, some legislators feel the people want the activities of the state prohibition department curtailed. There will be a real fight in the legislature over this proposal.

* * *

It won't be long now, before we dig down and pay for the 1927 automobile plates. Those of Wisconsin will be white on blue next year. They will be ready late in December. Utah, Tennessee and Missouri will have plates in 1927 somewhat similar to those of Wisconsin. Illinois plates will be orange on black.

* * *

Remarkable results have accrued from the medical service of the Wisconsin State Hospital, dedicated by the state to the care of shell-shocked soldiers, and many families have welcomed back men fully restored to usefulness in industrial life.

The World War left a greater number of "shell-shock" cases than could be properly taken care of. However, Wisconsin began providing for this problem almost immediately after the Armistice, and over 750 cases have been handled up to date at the Wisconsin Memorial Hospital at Mendota.

More patients are constantly coming in, many of whom have been discharged temporarily, and others who have never entered before. Out of the 750 who have received treatment, about 300 have been discharged as cured or greatly improved. This does not mean that the number left at the hospital is constantly diminishing, for an average of fifteen are coming in every month.

The Wisconsin Memorial Hospital is state owned and operated under contract of the United States Veteran Bureau to provide for care and maintenance of authorized cases. About fifteen per cent of the cases are not authorized by the Veteran Bureau and these are provided for by the State through the Service Rehabilitation Board.

Over one hundred employees are engaged in caring for the patients, their food, clothing, entertainment and general welfare.

* * *

Many men with legislative experience have been elected to serve in the session, which convenes here in January. Of the thirty-three members of the senate, thirty have had experience in either branch of the legislature. Seven of the senators are farmers and six are lawyers. Several other professions are represented. Of the 100 assemblymen, fifty-three have had previous legislative experience. There are thirty-eight farmers listed among the assemblymen. Only one woman, Helen F. Thompson, Park Falls, was elected to the legislature.

* * *

Four interim legislative committees appointed at the last session to study certain problems are preparing a report of their findings for the session which starts in January. The four committees were named to:

Study city and county consolidations. This committee made a trip west with Milwaukee county paying for the trip, although the committee was appointed by the legislature.

Investigate possible charges in state administration and taxation.

Outline a suitable memorial to the late Senator Robert M. La Follette.

Select a suitable memorial to the late Gov. E. L. Philipp.

Most interest is centered on the study that is being made by the committee investigating the possibility of consolidating boards and commissions and taxation. This committee has been very active during the last two years and has held numerous hearings and collected volumes of testimony.

* * *

There has been a great falling off in the number of cases of infantile paralysis in the state this year over last, according to a report by the state board of health. In 1925 there were 313 cases of the disease in Wisconsin of which 61 cases were fatal. So far this year there have been no epidemics of the disease. Up to Sept. 1st of this year there have been but 25 cases reported of which 12 were fatal. The state board of health has issued a pamphlet regarding the care of infantile paralysis which it is sending through the state.

* * *

John Donaghey, state highway engineer, is advocating a change in the speed laws of the state. At the present time the maximum auto speed in rural districts is 30 miles an hour, although in many counties this limitation is disregarded. Mr. Donaghey advocates a change in the law which will remove the speed limitations in rural districts, but will place the burden of proof in case of an accident, on the autoist who is driving faster than 30 miles an hour. His suggestion is now the law in Minnesota.

* * *

Wisconsin's workshop for the blind at Milwaukee must confine itself to the making of baskets and other willow ware until legislative permission is given for other forms of industry, Attorney General Herman L. Ekern held today in an opinion to the state board of control.

The workshop for the blind wants to add a line of rug weaving but the legislature has laid down its duties specifically as that of making willow ware. The attorney general held that the legislature order must be followed until it is changed by the legislature itself.

* * *

Four women were killed in the state in the past month because of their efforts in trying to light fires with kerosene and 17 serious accidents resulted through the use of gasoline, the state oil inspection department announced in November in cautioning citizens to use greater care in the handling of volatile liquids.

* * *

Many women are being committed to the Industrial Home for women at Taycheedah because of their refusal to accept treatment for social diseases, according to a statement by John J. Hannan, president of the state board of control, to Attorney General Herman L. Ekern.

The report of Mr. Hannan came in a request for an opinion as to who shall pay the cost of these cases. The attorney general held in an opinion that where the patient has no money the cost of such treatment can be charged back to the county from which the patient was sent to the institution.

* * *

Cities have no power to license bakers, the state supreme court held in declaring invalid the city ordinance of Milwaukee which sought to license those in the baking profession. The fact that the state licenses bakers shows that this power was taken by the state as a purely state function, the court held.

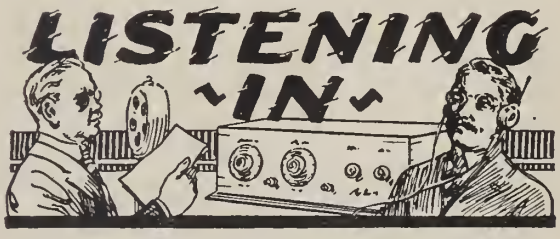
* * *

A report on alleged cheating at the recent bar examination written by Justice Christian Doerfler was handed down November 9th and declared that while the alleged wholesale cheating was unsubstantiated by fact but that there was found a number of cases of cheating "by word of mouth" and the passing of notes. The report declared that with great similarity in a number of the papers, some of the candidates for the bar first denied cheating but later confessed. These candidates were denied admission to the bar but the court took no action as to whether they might be later admitted. It left this question up to the board of bar examiners. Each of the cases will be judged separately as they come up, the court declared.

* * *

Students in the College of Agriculture had the highest scholastic average among the colleges and schools at the University of Wisconsin during the spring semester of the college year, 1925-26, according to a report just issued from the office of the dean of men. The college of letters and science ranked second, the college of engineering third, and the law school, fourth.

The average of the 2,166 men belonging to fraternities was lower than that of the 1,040 women in sororities. Non-fraternity men had a higher average than fraternity men, and non-sorority women likewise made higher grades than sorority women. Women students ranked higher than men.



VALUE OF MEDICAL DEFENSE

A few days before this Journal went to press, a member reported a threatened malpractice suit. He was wired for additional information and within twenty-four hours was advised that the threat could be disregarded as the action was outlawed under the Wisconsin statute of limitations. In response the member wrote:

"I feel that much praise and hearty thanks are due you and those of the defense department for prompt action and courteous treatment. I have a ..... policy, but they are procrastinators compared with the State Society."

MINNESOTA PROPOSES LAW

A bill will be introduced in the coming session of the Minnesota legislature to establish a State Board of Examiners in the Basic Sciences. The proposed measure is almost identical with the Wisconsin law except that annual reregistration would be required.

CHARITY ABUSE LAW

In a recent visit with Dr. P. T. Talbot, Secretary of the Louisiana State Medical Society, he reported the passage of a measure in that state designed to protect hospitals and the medical profession from abuse of the generous charity provisions offered by both. The Louisiana law, enacted this year, follows:

"Section 1. Be it enacted by the Legislature of Louisiana, That it shall be the duty of the Board of Administrators of the State Charity Hospital, or hospitals supported by the State, to refuse admission for treatment to persons not poor and destitute; provided that in no case shall persons of any description be refused emergency treatment; that the Board of Administrators of such hospitals shall make rules and regulations for the admission of persons to said hospitals, for the purpose of confining admissions to said hospitals to the poor and destitute.

"Section 2. That the Board of Administrators shall provide a questionnaire to be answered by all applicants for the admission to said hospitals before any person shall be admitted to said hospitals; that any person who is admitted to said hospitals through fraud or misrepresentation on the part of an applicant for admission, or any one acting for said person, shall be guilty of a misdemeanor and upon conviction shall be fined not less than five dollars nor more than twenty-five dollars, or confined in the Parish Prison for not more than ten days, or both, in the discretion of the Court.

HOMEOPATHIC-ECLECTIC

Interesting figures on medical education were brought to light during November when a member inquired how many eclectics and homeopaths had applied for licensure in Wisconsin during recent years. He also inquired as to the proportion that were now graduating as compared to the nonsectarian schools. The official compilation follows:

STATE SECRETARIES' CONFERENCE

Thirty-four state secretaries and fifteen editors of state medical journals attended their annual conference at the American Medical Association, Chicago, on November 19th and 20th. Wisconsin was represented by Drs. Rock Sleyster, Trustee of the American Medical Association, Dr. Arthur W. Rogers, President for 1927, Dr. J. J. McGovern, President-elect, and Mr. J. G. Crownhart, Secretary-Editor.

Dr. Wendall C. Phillips, President of the A. M. A., emphasized the value to both the physician and public of complete records and pointed out the opportunity offered in this direction by the movement for periodic examination of apparently healthy persons. The value of the councilor district medical society, the need for a uniform state constitution and by-laws, and the importance of the state medical journal were other subjects of discussion. Wisconsin is one of two states to adopt the new model constitution as recommended, and during 1926 a district meeting was held in each of the districts.

Telling of his impressions of state medical societies, Dr. Morris Fishbein, Editor of the Journal of the A. M. A., took occasion to mention Wisconsin by name in praising its 1926 annual meeting program. He pointed out that the program showed careful forethought and presented an excellent opportunity to the membership to obtain carefully prepared information on correlated subjects. This is the second consecutive year that Wisconsin programs have received such mention.

The final half-day session was devoted to the subject of periodic health examinations. The report for Wisconsin pointed out that this state society had sent a special letter on this subject to each member during the past year together with a free copy of the Manual of Suggestions for the Conduct of such examinations and a sample copy of the uniform blank. It was also reported that each district meeting had been addressed upon this subject, in ten instances by the President, Dr. Joseph F. Smith of Wausau. In addition several county societies had made this topic the subject for at least one meeting, and in one instance (Waukesha), had formulated a correlated program of discussion covering several meet-

Medical College Graduates

	1901-05	1906-10	1911-15	1916-20	1921-26
Nonsectarian	24,791	22,078	18,547	14,111	19,863
Homeopathic	1,790	1,118	895	646	462
Eclectic	734	621	420	243	209
Physio-Medical	100	76	5	.....	.....
Nondescript	83	147	.....	270	305
TOTALS	27,498	24,040	19,867	15,270	20,539

Medical Colleges

	1901	1905	1910	1915	1920	1926
Nonsectarian	125	125	109	83	76	74
Homeopathic	22	19	12	9	5	2
Eclectic	10	9	8	4	1	2
Physio-Medical	2	3	1	..	..	..
Nondescript	1	2	1	..	3	1
TOTALS	160	158	131	96	85	79

Licensure in Wisconsin Since 1904*

	1904-05		1906-10		1911-15		1916-20		1921-25	
	P.	F.†	P.	F.	P.	F.	P.	F.	P.	F.
Nonsectarian	140	10	290	23	309	42	189	14	342	16
Homeopathic	6	1	8	0	3	0	4	0	1	0
Eclectic	...	..	1	0	1	0	..	..	..	..
Physio-Medical	...	..	..	..	..	..	..	..	..	..
Nondescript	...	..	..	..	..	..	2	1	..	..
TOTALS	146	11	299	23	313	42	195	15	343	16

No Homeopathic or Eclectic schools existed in Wisconsin during 1901-1926.
†Passed. Failed.
*Figures previous to 1904 not available.

ings. Wisconsin also gave three clinics on different phases of this subject at the last annual meeting.

An intensive continuation of this work with lay educational efforts was promised for 1927 by Dr. Arthur Rogers.

TWENTY YEARS AGO

In view of the recent announcement by the State Board of Medical Examiners for enforcement of the provisions of the several acts in the chapter "Treating the Sick," it is interesting to note an editorial comment on this subject appearing in this Journal just twenty years ago.

"The renewed activity of the Wisconsin State Board of Medical Examiners in enforcing the medical laws of this state is encouraging and commendatory," declares the editor. "On complaint of the Milwaukee Health Department and the Board, warrants have been issued for the arrest of a number of illegal practitioners in Milwaukee * * *; this is said to be but the beginning of a state-wide crusade to rule out of practice all practitioners who have not fully complied with the law.

"Our medical laws should and must be enforced. They must be modified to meet changing conditions, and strengthened where they are weak, until there shall be upon the state books an enactment relating to medical practice which shall—so far as possible—guarantee to the sick that when they call for the services of a man who holds himself out as a physician, they shall at least have the services of an educated man and one who conducts his practice along the lines of ordinary decency and common honesty. This is all the profession asks for and the least that the public should expect."

* * *

An appeal was made to the profession of Wisconsin to send medical books to San Francisco to rebuild the library of the county society destroyed in the fire.

* * *

Dr. Charles S. Sheldon, Secretary of the State Society, issued an appeal for an "esprit de corps" pointing out that only through individual efforts in all portions of the state, might the society be successful in its scientific and legislative program.

"We wish a better and stronger profession," said Dr. Sheldon, "that we may render better service to the community and the state. * * * The most important assets in this whole business are the County Societies. Through their delegates and membership they control and *are* the State Society. * * * Strengthen the weak places in the organization, round up the stragglers, and so—all working together—may the coming year show a real advance in all things which make for the upbuilding of our beloved profession."

The Wisconsin Blue Sky Law: Standards for the Issuance of Class "A" Securities in Wisconsin Explained

BY MISS OLGA M. STEIG
Examiner, Securities Division, Wisconsin Railroad Commission

This is the second of a series of articles setting forth the means by which the state attempts to prevent fraud in finance. These articles, written especially for this Journal, will be of interest and value to every physician.—Editor's Note.

A previous article on the Wisconsin blue sky law points to the fact that protection against fraud in the sale of securities extends in three directions. The act provides control over the dealer, over the agent, and over the security itself. The problem of saying what securities may or may not be sold is difficult at best, but fortunately the Wisconsin act fixes definite standards from which, except under extraordinary conditions, the Commission has no authority to depart and which, therefore, allow the exercise of little discretionary power.

Exemptions

First, the law provides certain exemptions against which its provisions do not operate. These embody specific types of securities, in which it is generally conceded the element of fraud is not likely to exist, and specific transactions which, irrespective of the character of the security involved are not apt to prove fraudulent.

In the first of these two groups we have government and municipal bonds, which, it must be admitted, do not, at least in normal periods, lend themselves to fraudulent exploitation. That there has been exploitation bordering on fraud in the sale of certain foreign government securities during the last decade is probably true, but that is to be expected in abnormal times. Laws should not be enacted to meet the occasional abnormal situation; it is only when that condition becomes chronic that remedial legislative measures are justified.

The first group also includes commercial paper maturing not more than one year from its date; securities of Wisconsin banks, trust companies and the like which are subject to the control of the banking commissioner; securities issued by corporations organized under an act of Congress except those enacted solely for the District of Columbia; securities of Wisconsin corporations organized without capital or for fraternal, benevolent, charitable, educational, or reformatory purposes, securities of Wisconsin cooperative companies and a number of others of a more or less local character. That securities of this type should

not be restricted is not difficult to understand. It may be more difficult, however, to find a reason why the legislature saw fit to exempt securities listed on the three major stock exchanges—New York, Chicago, and Boston—or why it exempted securities issued by companies operating railroads or public utilities where the issuance of such securities is subject to authorization by a public service commission or similar body. The stock exchange exemption is probably based on these factors:

1. On the belief that because daily quotations appear in most metropolitan papers the investor has sufficient opportunity to protect himself against fraud.

2. On the belief that adequate financial data is available through manuals and statistical services on all such issues, a viewpoint which Professor Ripley's "Stop, Look, and Listen" should quickly dispel.

3. On the belief that the standards of the three major stock exchanges are so high as to preclude very largely the possibility of fraud.

Unfortunately the standards of the three exchanges are not identical and the justification for the exemption is challenged by its weakest link. If the standards of any stock exchange are such that the exchange becomes an easy clearing house for securities which could not otherwise be sold in this state, it is conceivable that abuses will result against which further legislative measures will be necessary. But obviously, quite apart from blue sky laws, the exchanges are themselves interested in maintaining high standards and their own resistance to such abuses is likely to prove more effective than restrictive legislation.

In the public utility exemption it cannot be argued that either daily market quotations or the availability of financial data is an influential factor. Many of the larger national issues enjoy a splendid market and are quoted almost daily. Many of them offer adequate financial data through Moody's or Poor's or other statistical bureaus. But there is a large volume of securities of small obscure utilities on which neither quotations nor financial data are available. The only theory then on which the exemption is based, appears to be that the regulation of public utility securities, because of their intimate relation to service and rates, is adequate. To those who are familiar with the history of public utility regulation the weakness of so broad an exemption must appear obvious. There has been no uniformity among public service commissions in methods of appraisal of public utilities for rate making purposes. Some commissions appear to hold to original cost plus improvements, others to reproduction cost at current price levels less depreciation, and still others to "prudent investment" irrespective of costs. Wisconsin has seen fit through its legislature to regulate the issuance of securities by its utilities in accordance with methods fixed by law. Yet it places no restriction against the sale of securities of public utilities the issuance of which has been authorized by other public service commissions, no matter how divergent their standards may be from those established for Wisconsin. It may be argued that the weakness is one in theory rather than in fact; that Wisconsin is not, as a matter of fact, flooded with weak public utility securities. It may be granted that under present conditions the exemption may do no harm; but it is at least susceptible to dangers with which the investing public should concern itself.

The second exempt group, that of specific types of transactions, needs no special emphasis. It includes isolated sales by the owner for his own account; judicial, guardian's, administrator's and executor's sales; sales made by a pledgee in good faith of securities pledged for a bona fide debt; and the distribution of a stock dividend out of surplus. While there is no exemption that is not open to evasion and even susceptible to abuse, these transactions are clearly not of the character against which blue sky legislation needs to be directed.

We come now to those securities which the legislature has determined shall be controlled, and which it has seen fit to divide into two broad classifications, Class A and Class B.

Alternative Standards for Class A Securities

For Class A securities the act establishes two sets of standards; one calculated to measure the ability of the issuer to pay interest or dividends on the securities to be outstanding and in the case of bonds or notes to measure his ability to repay the principal at maturity; the other calculated to establish a sufficient margin in property values above the amount of the debt for which the property is pledged, to protect the investor against declining values.

Earnings

The earning standards are of vital importance to the investor who is more interested in the

(Continued on Page 658.)

Forty Cities Represented at Wisconsin Anti-Tuberculosis Association Annual Meeting: Responsibility of Private Physician Stressed

BY MRS. RUTH MACMILLIN
Wisconsin Anti-Tuberculosis Association

"The burden of assuring early discovery and treatment for the tuberculous rests, in the final analysis, upon the rank and file of the private physicians of the state. The part of the Wisconsin Anti-Tuberculosis Association is primarily one of demonstration and of advertising the resources that medical science offers in the treatment and cure of this disease."

These are statements made by Dr. Hoyt E. Dearholt, executive secretary of the Anti-Tuberculosis Association, in his report at the Association's annual meeting held recently in Milwaukee. The meeting had a record-breaking attendance, with some 40 communities throughout the state represented.

"Of greater importance than the volume of work done by our staff physicians themselves," Dr. Dearholt declared, discussing the Association's traveling free chest discovery clinic work, "is the stimulation the chest clinics furnish to health examinations by local physicians. Many physicians have volunteered the information that during and following our clinics they receive more requests for health examinations than at any other time. The clinic work has also had a great influence in filling the vacant sanatorium beds and in keeping the sanatorium load well distributed. At the present time and during the past years, many of the institutions have been constantly over-crowded, and very few have had more than occasional vacancies."

The need for more intensive follow-up work after a clinic has been held in a community was stressed by Dr. Dearholt. "While we shall feel obligated to serve as many people in as many localities as possible," he declared, "we now believe that our greatest obligation in this field lies in following up our cases more competently and intensely rather than in extending the number so greatly as to make intensive work impossible."

A warning against the false sense of security which the steadily declining tuberculosis death rate is instilling into many was sounded by Dr. Dearholt. Tuberculosis, he conceded, has been reduced from the greatest single cause of death to the sixth place; but in the most important and productive years of life, the period from 20 to 40 years, it still remains the deadliest disease. These years are the years of young parenthood, when death leaves the largest number of dependent orphans. And then there is the long line of deaths occurring before the age of twenty. "Death is seldom beautiful to me," he declared, "but it is never so horrible as when it strikes down boys and girls, young men and young women."

The prevention and early discovery of tuberculosis, as the most important single factors in the campaign against the disease, were discussed at length by several speakers. A close cooperation between all health agencies and social workers' organizations was strongly urged on the ground that neither can function effectively without the other. It was urged that all social workers be thoroughly acquainted with the indications of tuberculosis in order to facilitate discovery while the prognosis is still favorable. Too many advanced cases are still being uncovered for the first time, it was declared. If the tuberculosis campaign did nothing but keep tuberculosis and the knowledge of how it may be prevented and cured in the public eye, it would still be worthwhile, one speaker asserted.

That tuberculosis is a social and educational problem that can be benefited but little by legislation was the contention of W. L. Bailey, Professor of Sociology at Northwestern University, who was the principal speaker at the dinner meeting. He attributed the prevalence of the disease largely to improper nutrition, lack of rest and poor living quarters. The first economy practiced when the family budget is cut, he declared, is usually in the matter of food, particularly milk.

That the migratory population which moves from one rooming house to the next is a powerful factor in spreading the disease, was the contention of Prof. Bailey. The living conditions among these people are usually bad, the bedrooms often overcrowded and poorly ventilated. He also stressed the prevalence of tuberculosis among young mothers in the poorer families, who are worn out by frequent child bearing. Their resistance is lowered, and, exposed to the disease in the close quarters, they become easy prey to the disease.

THE JOURNAL BOOK SHELF

Birth Control and the State. A plea and a forecast. By C. P. Blacker, M.D. E. P. Dutton & Company, 1926, New York.

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M.D., Prof. of Diseases of Children, Northwestern University Medical School, Chicago. Volume VIII containing 1102 pages with 388 illustrations and general index to Volumes I to VIII. Cloth, $10.00 per volume. W. B. Saunders Company, Philadelphia and London, 1926.

Clinical Pediatrics. By John Lovett Morse, M.D., Prof. of Pediatrics, Emeritus, Harvard Medical School. Cloth, $9.00 net. Illustrated. W. B. Saunders Company, Philadelphia and London.

Medical Clinics of North America. Volume X, No. 1. Philadelphia number, July, 1926. Octavo of 260 pages with 24 illustrations. Per clinic year, July, 1926, to May, 1927. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Surgical Clinics of North America. Volume VI, number 3. Lahey clinic number, June, 1926. Pages, 214, with 54 illustrations. Per clinic year, February, 1926, to December, 1926. Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Goiter and Other Diseases of the Thyroid Gland. By Arnold C. Jackson, M.D., Jackson Clinic, Madison. Three hundred pages, one hundred and fifty-two illustrations; price, $10.00 net. Paul B. Hoeber, New York.

Cannula Implants and Review of Implantation Technics in Esthetic Surgery. By Charles Conrad Miller, M.D. Description of technic of implantation of living tissues and foreign material through a cannula. One hundred and seventy-eight pages, eleven illustrations. Price, $2.00. The Oak Press, Chicago.

Practical Materia Medica and Prescription Writing. By Oscar W. Bethea, M.D., Prof. of Clinical Therapeutics, Tulane School of Medicine. Fourth revised edition. F. A. Davis Company, Philadelphia, 1926.

The Modern Treatment of Hemorrhoids. By Joseph Franklin Montaque, M.D., University and Bellevue Hospital Medical College, New York. One hundred and sixteen illustrations. Price, $5.00. J. B. Lippincott Company, Philadelphia and London.

Surgery of Neoplastic Diseases by Electrothermic Methods. By George A. Wyeth, M.D., New York. One hundred and thirty-seven illustrations. Price, $7.50. Paul B. Hoeber, New York.

Blood Chemistry Colorimetric Methods. Second edition. For the general practitioner with clinical comments and dietary suggestions by Willard J. Stone, M.D., attending physician, Los Angeles General Hospital and Pasadena Hospital. Price, $3.25. Paul B. Hoeber, Inc., New York, 1926.

Handbook of Diseases of the Rectum. By Louis J. Hirschman, M.D., Prof. of Proctology, Detroit College of Medicine; Proctologist, Harper and Woman's Hospitals. With 252 illustrations, mostly original, and five colored plates. Fourth edition revised and rewritten. Price, $6.50. C. V. Mosby Company, St. Louis, 1926.

Chemistry of Food and Nutrition. By Henry C. Sherman, Sc.D., Mitchell Professor of Chemistry, Columbia University. Third edition, rewritten and enlarged. The MacMillan Company, 1926, New York.

Defective Memory, Absentmindedness and Their Treatment. By Arnold Lorand, M.D., Carlsbad, Czecho-Slovakia. F. A. Davis Company, Philadelphia, 1926.

The Treatment of Fractures. With notes upon a few common dislocations. By Charles Locke Scudder, M.D., consulting surgeon to the Massachusetts General Hospital. Tenth edition, revised. Octavo volume of 1240 pages, with 2027 illustrations. Polished buckram, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1926.

Practical Dietetics for Adults and Children in Health and Disease. By Sandford Blum, M.D., Head of Department of Pediatrics, and Director of the Research Laboratory, San Francisco Polyclinic and Post Graduate School. Second revised edition; price $4.00 net. F. A. Davis Company, Philadelphia, 1926.

Physiotherapeutic Lectures. Third edition. Condensed report of lectures, clinics and discussions at Fourth Annual Physiotherapeutic Convention. H. G. Fischer & Co., Inc., 1925.

Diathermy with Special Reference to Pneumonia. By Harry Eaton Stewart, M.D. Second edition, revised, with 45 illustrations and 15 charts. Paul B. Hoeber, Inc., New York, 1926.

BOOK REVIEWS

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to the Secretary, Mr. J. G. Crownhart, 153 Oneida Street, Milwaukee, Wisconsin. These new books will be loaned for an inspection period only.

The Ophthalmic Year Book. Volume XXII. Containing bibliographies, digests and indexes of the literature of ophthalmology for the year 1925. Edited by William H. Crisp. Published by the Ophthalmic Publishing Company, Chicago, September, 1926.

As indicated in the title, Vol. XXII of the Ophthalmic Year Book, written by thirty-three collaborators and edited by William H. Crisp, contains bibliographies, digests and indexes, with table of contents, of the literature of ophthalmology for the year 1925. In comparison with its predecessors, more economy of space has been attained by greater condensation of the abstracts and by considering only articles of value, while others are mentioned merely by title. By placing numbers behind the names of authors in the text corresponding with the numbers in the alphabetical bibliography at the head of each chapter, orientation is greatly facilitated. The subject matter is well arranged in thirty-two chapters, with nine illustrations from the original articles reviewed. The Year Book is of great value in giving a very complete review of the progress in ophthalmology in 1925 and as a work of reference.—C. Z.

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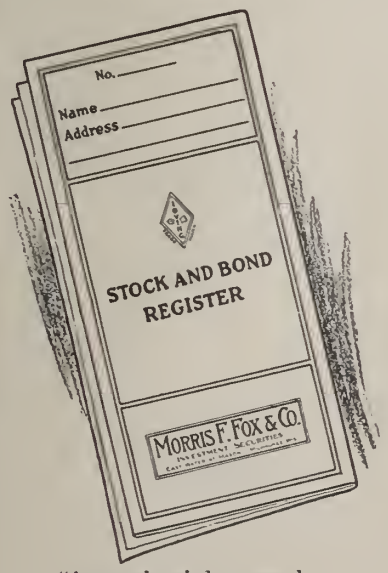

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Medical Clinics of North America. Philadelphia number, September, 1926. Volume X, Number 11. Octavo of 217 pages with 16 illustrations. Per clinic year, July, 1926, to May, 1927: Paper, $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

This volume of the well-known Medical Clinics is made up of material written in both article and clinic form. All the articles are interesting, some unusually so, for they have rather complete bibliographies appended to the articles. This Philadelphia number contains articles on Obstructive Jaundice, Chronic Arthritis, Differential Diagnosis between Syphilis and Psoriasis, Malignancy in the Presence of Syphilis, Malnutrition. A modern Pediatric Problem, etc. If now and then the authors express views not universally accepted, it rather adds to, than detracts from, the value of the articles. Only by expressing radical differences of opinion backed by data and study about matters not yet settled will we ever advance towards the truth.

—L. M. W.

Acute Epidemic Encephalitis. (Lethargic Encephalitis) An investigation by the Association for Research in Nervous and Mental Diseases. Report of the papers and discussions at the meeting of the association; New York City, December 28th and 29th, 1920. Paul B. Hoeber, New York City.

This small book on Encephalitis is an excellent, concise résumé of our knowledge of the disease at the time of its publication in 1920. The advances made, however, in the last five years in the study of the varied symptomatology of the disease are of course not included, therefore while the book was of distinct value at the time of its publication that value is definitely less at the present time. It is to be hoped that the association for research in Nervous and Mental diseases may see fit to bring this book up to date.—B. B. R.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners. Volume III. Thirty-sixth series, 1926. J. B. Lippincott Company, Philadelphia and London.

This volume of the International Clinics contains some very interesting and valuable material. There are twenty-nine papers comprising diagnosis and treatment, neurology and psychiatry, surgery, travel and biography. The contributions which seemed especially good to the reviewer were "Acidosis and Alkalosis in Infancy and Childhood" by Julius Hess, "A Very High Blood Pressure Clinic" by Louis Fangeres Bishop, "Management of Bronchial Asthma" by Nathan S. Schiff and a short biography of Sir Clifford Allbutt written by Sir Humphrey Rolleston. The numerous original contributions to medicine made by the late Sir Clifford Allbutt were a revelation and a surprise.

—R. M. G.

The Duodenal Tube and Its Possibilities. By Max Einhorn, M.D., Prof. of Medicine at the New York Postgraduate Medical School; visiting physician to the Lenox Hill Hospital, New York. Second edition, revised and enlarged; illustrated, F. A. Davis Company, Philadelphia, 1926.

Our knowledge of lesions of the duodenum, gall-bladder and the pancreas is still very limited and any work that will encourage the study of these lesions deserves encouragement. Such is the case of the duodenal tube. Although its use as a diagnostic agent has become less as we have become more proficient in the use of the x-ray, it has a place in our armamentarium.

Even though the duodenal tube is not used extensively by the profession in general, it is hoped that men like Einhorn will continue with their work, because it seems to the writer, that it is along these lines that our hope lies of successfully treating duodenal ulcers and chronic cholecystitis.

The book is well-written, the illustrations are good and the work deserves a definite place in our medical literature.—E. H. M.

Essays in the History of Medicine. By Karl Sudhoff, M.D., translated by various hands and edited by Fielding H. Garrison, M.D., Lieutenant Colonel, Medical Corps, U. S. Army. Volume II of The Library of Medical History; $5.00 postpaid. Medical Life Press, New York, 1926.

The historical studies contained in this volume, are in the main those published by Professor Sudhoff under the title "*Sketches*" in 1921. Garrison in a foreword says, "These essays and sketches represent, in a manner, the fine flower, the end results of Sudhoff's massive achievement in the history of medicine, a prodigious life work which has not been approached in variety, extent and importance by that of any other medical historian of the past or present. * * * The present collection of essays is intended not merely for professional medical historians but for physicians, scientific men and all who are interested in the general history of culture. For this reason, contributions which deal with the technical handling of problems have been omitted."

In addition to the foreword, Garrison has contributed a biographical sketch of forty pages.—S. J. S.

Pathology of the Nervous System. By E. Farquhar Buzzard, M.D., physician to St. Thomas' Hospital and physician to outpatients at the National Hospital for the Paralyzed and Epileptic, and J. Godwin Greenfield, M.D., pathologist to the National Hospital for the Paralyzed and Epileptic. Paul B. Hoeber, New York City, 1925.

This small book on nervous pathology is very clearly written. The descriptions are distinctly to the point and, as is true of so many English publications, there is a lack of the verbosity and repetition which are altogether too frequent in many publications. This book, of course, is primarily a discussion of the pathology of various organic diseases of the Central Nervous System. Etiology receives rather brief mention but there is no adequate effort made at a description of the clinical syndromes. The book is of primary interest to the pathologist and is a valuable reference book to the clini-

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cal neurologist. The only correction that might be made is that the book is somewhat sketchy.—B. B. R.

Modern Clinical Syphilology. By John H. Stokes, M.D., Prof. of Dermatology and Syphilology in the School of Medicine, University of Pennsylvania. Octavo of 1444 pages with 885 illustrations and text figures and more than 200 detailed case histories. Cloth, $12.00 net. W. B. Saunders Company, Philadelphia and London, 1926.

Written by a clinician and teacher of international reputation, this book represents one of the foremost American contributions to the advancement of the proper clinical study of syphilis. Approaching his subject in a thoroughly original manner, Dr. Stokes has placed under one cover all the essential information necessary for a proper understanding of clinical syphilis, presented in such a manner as to be invaluable to clinician and student alike. The author's literary style is forceful and direct and the study has been approached from every angle with due space devoted to each phase, commensurate with its importance, so as to make the text comprehensive and yet concise. One of the noteworthy features is a large series of carefully selected, concisely presented and critically discussed case histories. Other important features are the numerous excellent photographs with explanatory foot notes and the many tables on differential diagnosis, symptomatology, treatment and statistical studies. The section on technical methods of examination, diagnosis and treatment show painstaking attention to detail and are excellently illustrated. General considerations and details of treatment are thoroughly discussed separately from the symptomatology, diagnosis and treatment of distinct phases of syphilis. The various visceral systems are taken up separately, 100 of the 323 pages of this section being devoted to a thorough discussion of the management of syphilis of the nervous system. The reproduction of photographs and drawings, and the paper, binding and printing are all of the highest grade.

To everyone interested or concerned in the study, teaching or practice of syphilis, this book is most enthusiastically recommended.—H. R. F.

STATE BLUE SKY LAW

(Continued from Page 652.)

ability of the issuer to meet interest or dividends, than in physical security. While past performance is not an infallible guide to the future, it offers the only tangible evidence available as to the capacity of the business to earn profits. The act, therefore, sets up for Class A securities well-defined net-profit requirements, and specifies for what period these requirements shall have been met.

Originally the act permitted qualification on earnings, only on a showing of specified net profits for each of two years preceding the qualification. But the post-war depression in 1920 and 1921 brought about a situation which reacted unfairly against practically every new financing, even against the best issues available at that time. Many well established industries, which had theretofore shown satisfactory profits over a long period of years, were caught with large inventories purchased at peak prices and it was inevitable that many of them should sustain operating losses when the slump came. Obviously, neither two years during a period of depression nor two years during a period of abnormally high profits constitute a basis for judgment as to what the future will show.

The 1921 legislature found it necessary, therefore, to amend the act to permit consideration either of profits for each of two years preceding the financing as originally provided, or of average profits over a period of not less than four nor more than eight years.

On one basis or the other the following standards must be met:

1. In the case of bonds, notes or other interest bearing obligations, net profits of at least 1½ times the interest charges on securities of equal rank to be outstanding.

2. In the case of preferred stock, net profits of at least 1½ times the dividends on all preferred stock of equal rank to be outstanding.

3. In the case of common stock net profits of at least 5% on all common stock to be outstanding computed at its proposed sale price but not less than par.

Commission Policies

In this connection I think it is germane to point to some of the practices and policies of the commission. The commission can not audit the books of every concern for whose securities the Wisconsin market is sought; the impracticability of such procedure is plain. However, in larger issues, it does require a detailed audit report by a reputable certified public accountant; in the smaller issues, if the expense of an audit does not appear to be justified, it will accept financial statements accompanied by affidavits as to correctness by at least one principal officer and by the person in charge of accounts.

Three things are of vital importance in these financial reports:

1. Balance sheet.
2. Income account.
3. Analysis of surplus account.

THE WISCONSIN MEDICAL JOURNAL

STATE MEDICAL SOCIETY OF WISCONSIN — MEDICINA NUSQUAM NON EST

Owned and Published by the State Medical Society of Wisconsin
J. G. CROWNHART, Secretary-Managing Editor

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27th—ROBERT CALDWELL, Lodi, Rep., Farmer (Columbia, Richland, Sauk).

28th—HERMAN T. LANGE, 930 Third Ave., Eau Claire, Rep., Wholesale Grocer (Chippewa and Eau Claire).

29th—CARL B. CASPERSON, Frederic, Prog. Rep., Lumberman, Farmer (Barron, Dunn, Polk).

30th—JAMES A. BARKER, Rt. 2, Antigo, Rep., Farmer (Florence, Forest, Langlade, Marinette and Oneida).

31st—HOWARD TEASDALE, Sparta, Rep., Attorney (Adams, Juneau, Monroe, Marquette).

32nd—V. S. KEPPEL, Holman, Rep., Dairyman (Jackson, La Crosse and Trempealeau).

33rd—JOHN C. SCHUMANN, Watertown, Rep. Farmer (Jefferson, Waukesha).

ASSEMBLYMEN

Adams and Marquette—ROBERT B. WOOD, Adams, Rep., Banker.

Ashland—B. J. GEHRMAN, Mellen, Rep., Farmer, R. I.

Barron—CHARLES A. BEGGS, Rice Lake, Rep., Retired Farmer.

Bayfield—PAUL UNGRODT, Washburn, Rep., Hardware Merchant.

Brown, 1st—MALCOLM A. SELLERS, Green Bay, Rep., Bridge Inspector.

Brown, 2nd—GUSTAV ZITTLOW, Rep., Farmer, R. 1, West De Pere.

Buffalo and Pepin—ARTHUR A. HITT, Alma, Rep., Teacher.

Burnett and Washburn—L. L. THAYER, Birchwood, Rep., Farmer.

Calumet—CARL HILLMANN, Brillion, Rep., Farmer.

Chippewa—GUSTAVE RHEINGANS, Chippewa Falls, Prog. Rep.; Clerk.

Clark—ARLO A. HUCKSTEAD, R. 4, Neillsville.

Columbia—E. MYRWYN ROWLANDS, Cambria, Rep., Banker.

Crawford—ARCHIE J. McDOWELL, Soldiers Grove, Rep., Physician.

Dane, 1st—ALVIN C. REIS, 2262 W. Lawn Ave., Madison, Rep., Attorney.

Dane, 2nd—JAMES C. HANSON, R. 3, Deerfield, Rep., Farmer.

Dane, 3rd—ALBERT J. BAKER, R. 2, Mt. Horeb, Rep., Farmer.

Dodge, 1st—JOHN M. DIHRING, Brownsville, Rep., Farmer.

Dodge, 2nd—PHILIP J. ZINK, 414 W. Maple St., Beaver Dam, Dem., Woolen Weaver.

Door—BERNARD HAHN, Fish Creek, Rep., Farmer.

Douglas, 1st—WALTER W. LANG, 1301 18th St., Superior, Rep., Sec. Fuel Company.

Douglas, 2nd—PHILIP E. NELSON, Maple, Rep., Farmer.

Dunn—J. D. MILLAR, Menomonie, Rep., Farmer.

Eau Claire—CHRISTIAN N. SAUGEN, R. 1, Eleva, Rep., Farmer.

Florence, Forest and Oneida—J. D. GRANDINE, Argonne, Rep., Farmer.

Fond du Lac, 1st—MATH KOENIGS, R. 7, Fond du Lac, Rep., Farmer.

Fond du Lac, 2nd—THOS. J. DIERINGER, R. 5, Campbellsport, Prog. Rep., Farmer.

Forest—(See Florence).

Grant, 1st—HARRY E. STEPHENS, Platteville, Rep.

Grant, 2nd—LEROY D. EASTMAN, Lancaster, Rep., Lumberman, Farmer.

Green—E. J. HOESLY, New Glarus, Prog. Rep., Cattle Dealer.

Green Lake and Waushara—GEORGE M. O'CONNOR, Hancock, Rep., Farmer.

Iowa—JOHN S. JACKSON, Mineral Point, Rep., Farmer.

Iron and Vilas—R. C. TREMBATH, Hurley, Rep., Law Student.

Jackson—EMIL G. GILBERTSON, Black River Falls, Rep., Farmer.

Jefferson—DON V. SMITH, R. 1, Lake Mills, Rep., Farmer.

Juneau—A. A. TELFER, Elroy, Rep., Banker.

Kenosha, 1st—CONRAD SHEARER, 520 68th Place, Kenosha, Rep., Secretary and Office Manager.

Kenosha, 2nd—D. J. VINCENT, Genoa City, Rep., Retired Farmer.

Kewaunee—ANTON G. SCHAUER, Kewaunee, Rep., Farmer, Banker.

La Crosse, 1st—GARDNER R. WITHROW, 827 George St., La Crosse, Rep., R. R. Conductor.

La Crosse, 2nd—JOHN L. LARSON, West Salem, Rep., Farmer.

LaFayette—DELL PENNISTON, Argyle, Rep., Farmer.

Langlade—JOHN FRONEK, R. 2, Antigo, Rep., Farmer.

Lincoln—RICHARD KAMKE, Merrill, Rep., Hardware and Implements.

Manitowoc, 1st—CHARLES SCHUETTE, 1609 Washington St., Manitowoc, Rep., Collection Manager.

Manitowoc, 2nd—HERMAN ROETHEL, Kiel, Rep., Retired Farmer.

Marathon, 1st—MATT J. BERRES, R. 5, Prog. Rep., Edgar, Dairy Farmer.

Marathon, 2nd—HENRY ELLENBECKER, Wausau, Rep., Painting Contractor.

Marinette—CHARLES A. BUDLONG, 2628 Parkridge Ave., Marinette, Rep., Police Judge.

Marquette—(See Adams).

Milwaukee, 1st—THOMAS H. CONWAY, 754½ Jackson St., Rep., Insurance.

Milwaukee, 2nd—MICHAEL LAFFEY, 175 18th St., Rep., Real Estate.

Milwaukee, 3rd—ALBERT F. WOLLER, 1627 17th St., Socialist.

Milwaukee, 4th—THOMAS M. DUNCAN 1369 Humboldt Ave., Socialist, Secretary.

Milwaukee, 5th—GEORGE L. TEWS, 372 1st Ave., Socialist.

Milwaukee, 6th—FREDERICK J. PETERSON, 721 4th St., Rep., Doctor of Physiotherapy.

Milwaukee, 7th—PHILLIP WENZ, 824 12th St., Socialist.

Milwaukee, 8th—LOUIS S. POLEWCZYNSKI, 1436 13th Ave., Rep.

Milwaukee, 9th—JULIUS KIESNER, 592 19th St., Socialist, Clerk.

Milwaukee, 10th—JOHN W. EBER, 17 36th St., Lawyer.

Milwaukee, 11th—ELMER H. BAUMANN, 764 Muskego Ave., Socialist.

Milwaukee, 12th—HENRY A. STAAB, 903 39th St., Rep., Executive Secretary.

Milwaukee, 13th—BARNEY F. SPOTT, 1076 Breman St., Rep.

Milwaukee, 14th—GEORGE GAUER, 277 Austin St., Socialist.

Milwaukee, 15th—THEO. ENGEL, 2820 Chestnut St., Rep., Contractor.

Milwaukee, 16th—ARTHUR J. MILLER, 388 36th St., No., Rep.

Milwaukee, 17th—CLARENCE C. KRAUSE, Sta. D., R. 2, Rep., Teacher.

Milwaukee, 18th—FRANK L. PRESCOTT, 375 Cumberland Ave., Whitefish Bay, Rep., Publisher.

Milwaukee, 19th—GEORGE C. HINKLEY, 592 51st Ave., West Allis, Rep.

Milwaukee, 20th—WILLIAM C. COLEMAN, 1425 22nd St., Socialist, Labor Secretary.

Monroe—EARL D. HALL, Tunnel City, Rep., Farmer.

Oconto—CARL SCHOENEBECK, Lena, Rep., Life Insurance.

Oneida—(See Florence).

Outagamie, 1st—OSCAR J. SCHMIEGE, Appleton, Prog. Rep., Student.

Outagamie, 2nd—ANTON M. MILLER, Kaukauna, Prog. Rep., Farmer.

Ozaukee—JOHN JUNGERS, Grafton, Rep., Manufacturer, Farmer.

Pepin—(See Buffalo).

Pierce—THEODORE SWANSON, R. 1, Ellsworth, Rep., Farmer.

Polk—E. E. HUSBAND, Balsam Lake, Rep., County Officer, Editor.

Portage—M. J. MERSCH, 800 Division St., Stevens Point, Dem., Building Contractor.

Price—HELEN F. THOMPSON, Park Falls, Rep., Retired Teacher.

Racine, 1st—WALLACE INGALLS, 1618 College Ave., Racine, Rep., Lawyer.

Racine, 2nd—EDWARD F. HILKER, 319 LaFayette Ave., Racine, Rep., Coal Broker.

Racine, 3rd—J. H. KAMPER, R. 1, Franksville, Rep., Farmer.

Richland—HARLEY A. MARTIN, Richland Center, Ind., Secretary Cattle Club, Farmer.

Rock, 1st—JOHN S. BAKER, Evansville, Rep., Manufacturer.

Rock, 2nd—ERASTUS G. SMITH, 716 Emerson St., Beloit, Rep., Professor Emeritus, Banker.

Rusk and Sawyer—A. C. SCHULTZ, Bruce, Rep., Farmer.

St. Croix—ROBERT MALCOMB GRAHAM, Roberts, Rep., Dairyman.

Sauk—CARL KOENIG, Loganville, Rep., Farmer.

Sawyer—(See Rusk).

Shawano—PAUL FUHRMAN, Bowler, Rep., Lumberman.

Sheboygan, 1st—ERNST A. SONNEMANN, 501 Wis. Ave., Sheboygan, Rep., Retired Fisherman.

Sheboygan, 2nd—JOHN MENTINK, Cedar Grove, Rep., Farmer.

Taylor—JOHN GAMPER, Medford, Rep., Farmer.

Trempealeau—GEORGE SCHMIDT, Arcadia, Rep., Retired Farmer.

Vernon—AUGUST E. SMITH, Viroqua, Rep., General Insurance.

Vilas—(See Iron).

Walworth—FRANK E. LAWSON, Walworth, Rep., Banker.

Washburn—(See Burnett).

Washington—JOS. J. HUBER, West Bend, Rep., Newspaper Publisher.

Waukesha, 1st—EVAN G. DAVIES, Wales, Rep., Farmer, Insurance.

Waukesha, 2nd—WILLIAM H. EDWARDS, Sussex, Rep., Retired.

Waupaca—ADAM SCHIDER, R. 3, Manawa, Rep., Auctioneer, Farmer.

Waushara—(See Green Lake).

Winnebago, 1st—CHESTER SEFTENBERG, 363 Jackson Drive, Oshkosh, Rep., Teacher.

Winnebago, 2nd—NELS LARSON, 404 W. Winneconne Ave., Neenah, Rep., Retired.

Wood—PETER R. EBBE, 203 So. Maple St., Marshfield, Prog. Rep., Farmer.

FEDERAL INCOME TAX PROVISIONS AFFECTING PHYSICIANS

It will be noted that returns need not be filed before the middle of March. It is possible that before that time Congress will make a credit reduction applicable on the 1926 tax payment.

A sharp revision of the normal tax rate and a modification of the surtax and provision for an "earned income" reduction constitute the most important changes made in the federal income tax law.

Returns must be made to the Collector of Internal Revenue of the district in which the individual affected resides before March 15, 1927.

Responsibility for making these returns is vested with the individual. Blank forms are mailed to all known persons who have previously made returns. Failure to receive such forms, however, will not be accepted as an excuse for failure to file within the time specified by the law.

Under regulations effective last year, all persons deriving incomes from a business or profession, or both, are required to file their return upon Form 1040 (the large form). The small form, or 1040A, is for persons who secure their incomes from wages, salaries or interest alone and where the gross amount is less than $5,000. The large form, or 1040, is also used by persons reporting an income of $5,000 or over, regardless of the nature of its source.

The large form, or 1040, will be mailed to all Wisconsin physicians by the Collectors of Internal Revenue. If such blank is not received, apply to the Collector of Internal Revenue of the district in which you reside.

NEW RATES

The Normal Tax Rates: First $4,000 in excess of credits, *one and one-half per cent;* next $4,000, *three per cent;* and the remainder of net income, *five per cent.*

The Surtax Rates: Surtax is computed upon net income before personal exemption dividends and taxable liberty bond interest is deducted. The surtax is not applicable to net incomes of less than $10,000.00 and upon net incomes in excess of that amount, the tax is levied on a graduated scale. A partial list of surtax rates is shown below:

	Rate of Tax	Tax
Net incomes up to $10,000.....		None
In excess of $10,000.00 and not in excess of $14,000.00.....	1%	$ 40.00
In excess of $14,000.00 and not in excess of $16,000.00.....	2%	80.00
In excess of $16,000.00 and not in excess of $18,000.00.....	3%	140.00
In excess of $18,000.00 and not in excess of $20,000.00.....	4%	220.00

For example, a person having a net income of $11,500.00 will be required to pay a 1% surtax on that amount of income in excess of $10,000.00 or 1% on $1,500.00, a surtax of $15.00. A person whose net income was $14,800.00 would compute his surtax as 1% on the first $4,000.00 in excess of $10,000.00 or $40.00 plus 2% on net income in excess of $14,000.00, that is, 2% on $800.00, $16.00; a total of $56.00 surtax.

LIABILITY TO FILE

If married, a return should be filed if the net income was $3,500 or over. If single, a return should be filed if the net income was $1,500 or over. If the *Gross Income* was $5,000 or over, a return is required whether married or single, and regardless of the net amount left over after legitimate expenses are deducted.

Liability to file a return is contingent upon the amount of net income, and not upon a net income with personal exemptions deducted. In other words, if the net income was $1,500 or $3,500, single or married respectively, and personal exemptions reduce these amounts, individuals *will not be required* to pay a tax, but *must file a return.*

The Internal Revenue authorities consider a person

married on December 31, 1925, as being eligible to the marital exemptions.

PERSONAL EXEMPTIONS ALLOWED

If married and living with wife, or the head of a family for the entire year an exemption of $3,500 is permitted.

If single, and not the head of a family, the personal exemption is $1,500. An additional $400 for each person, other than husband or wife, dependent upon and receiving support from you, is allowed, provided the dependent is under 18 years of age, or incapable of support because of mental or physical condition.

In the case of a change in marital status during the year, the exemptions of $3,500 and $1,500 shall be prorated over the period of married and single state.

OFFICE RENTALS

If a physician pays rent to another person for office space, he is permitted to deduct the amount from his gross income. If he owns his home and maintains an office in it, he cannot claim a deduction for office rent.

AUTOMOBILE

The cost of repair and upkeep of an automobile used in professional visits may be deducted. The salary of a chauffeur, if most of his time is spent in driving to professional calls, may also be deducted. Sums spent for taxi hire, car fares, etc., while on professional calls, may be deducted. The basic cost of a business automobile may be depreciated.

However, the excise, or "War Tax" paid on the purchase of a new automobile is not deductible, for the reason that this tax is assessed against the manufacturer, who passes it on to the purchaser as a part of the cost of the machine. The original cost of a business automobile, however, may be depreciated. To arrive at original cost of a business automobile take the list price of car, f. o. b. factory, which is the basis of deduction, but divided over a period of years. In other words, if the list price of an automobile is $2,000 and its estimated period of usefulness is five years, $400 or 20 per cent of list price, f. o. b., may be deducted each year for 5 years.

ASSISTANTS

Deductions are permitted for the salary of a nurse, laboratory assistant, stenographer or clerical worker in the office so long as the duties of these are in connection with the physician's professional work. Wages paid to maids taking care of the office, answering the telephones are also deductible, as are any funds paid to employes for services rendered in connection with practice, or care and treatment of patients.

MEDICINES, INSTRUMENTS, SUPPLIES

Medicines used in the office to treat patients, bandaging, laboratory materials and all other supplies necessary to operate a physician's office may be deducted. Upon surgical instruments, one fifth of the purchase price may be deducted annually for five years under depreciation account.

GENERAL OFFICE EXPENSE

Cost of all telephones used in the office is exempt and may be deducted. Expenditures for heat, light and water for the office may be deducted. An annual depreciation of 10 per cent of the cost of office furnishings and fixtures may be deducted.

LIBRARY

Most physicians have a more or less extensive library. Courts have held that medical books during the course of ten years become out of date. For this reason, a 10 per cent depreciation may be deducted annually.

TAXES, LICENSES

Any taxes paid upon materials required in professional work are exempt. All licenses which the physician is required to take out, may be taken off the gross income reported. This includes the license to prescribe or use alcohol, narcotic tax, automobile license, local occupational taxes, etc.

PROFESSIONAL DUES

Dues paid to professional associations to which, in the interest of his business or profession he belongs, are exempt and may be deducted. Also subscriptions to all medical journals or scientific publications are exempt. However, the Internal Revenue Collector has announced that expenses involved in attending the annual meetings of professional societies *are not a deductible item.*

WHEN TO DEDUCT DEBTS

If the physician's books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debts because "if his books are kept according to this system, he is not only reporting as gross income those accounts which have proved to be good and therefore bad accounts cannot be deducted because they have already been excluded."

If the books are kept upon an "accrual basis" (that is if the basis of expense actually incurred and payable even though not yet paid, or income earned although not yet collected), it is permitted to charge off on the income tax blank all debts which have been definitely ascertained to be worthless during the fiscal year covered by the report.

In the same way, the physician is permitted to claim deductions for all other expenses within the scope of his profession, and the amount of his tax is determined on the *net income* which remains after all these items *have been deducted.*

EARNED INCOME

For several years students of income taxation have contended that income derived from the personal endeavor of a tax payer should not be taxed at as great a rate as is income derived from other sources. This fact is for the first time recognized in the new law which provides that the income shall be first computed in the usual way and then it shall be recomputed on the earned income as if that income were the entire income.

The term "Earned Income" means wages, salaries, professional fees, or compensation for services.

The first $5,000.00 of net income is considered earned income, no matter from what source derived. The 20% limitation placed on net income derived from a business where both capital and personal service are material income producing factors, is not applicable to physicians whose income is held to be directly attributable to their rendition of personal service. However, in no

case may the earned income be considered to be more than $20,000.00.

It is anticipated that the earned income credit provision of the law will create a great amount of confusion in the computation of tax and for the benefit of our readers an example applicable to the income of a physician is given below:

Net income from practice	$ 8,000.00
Net income from rents	500.00
Net income from sale of property	5,000.00
Total net income	$13,500.00

Taxpayer married with two dependents under 18 years of age.

COMPUTATION

Net income	$13,500.00
Marital exemption $3,500; dependent exemption $800	4,300.00
Subject to normal tax	9,200.00
First $4,000.00 subject to normal 1½% tax	4.000.00
	5,200.00
Second $4,000.00 subject to normal 3% tax	4,000.00
Remainder subject to normal 5% tax	1,200.00
Normal 1½% tax	60.00
Normal 3% tax	120.00
Normal 5% tax	60.00
Surtax 1% on net income in excess of $10,000.00	35.00
	275.00
Earned income credit (see computation below)	16.37
Total tax due	258.63

COMPUTATION OF EARNED INCOME CREDIT

Earned income (income from practice)	8,000.00
Exemption	4,300.00
Subject to normal tax	3,700.00
Normal 1½% tax	65.50
Earned income credit ¼ of tax on earned income or	16.37

WISCONSIN TAX COMMISSION EXPLAINS STATE INCOME TAX LAWS

WHO MUST FILE RETURNS

Chapter 71.09 (3). Every corporation, joint stock company or association, whether taxable under this chapter, or not, shall furnish to the tax commission a true and accurate statement, on or before March fifteenth of each year, except that returns for fiscal years ending on some other date than December thirty-first, shall be furnished within sixty days after the last day of such year, in such manner and form and setting forth such facts as said commission shall deem necessary to enforce the provisions of this chapter. Such statement shall be made upon the oath or affirmation of the president, vice-president, or other principal officer and the treasurer of said corporation, joint stock company, or association. All corporations doing business in this state shall also file with the tax commission on or before March fifteenth of each year a schedule of such transfers of its capital stock as have been made by or to residents of this state during the preceding calendar year. Such schedule shall contain the name and address of the seller and the purchaser, date of transfer, and the number of shares of stock transferred. Any corporation failing to file such schedule shall be subject to a fine of not less than fifty nor more than five hundred dollars.

Chapter 71.09 (4) (a). Whenever in the judgment of the assessor of incomes any person other than a corporation, joint stock company or association shall be subject to income tax in his district under the provisions of this chapter, he shall notify such person to make report to him on or before March fifteenth of each year in such manner and form as the tax commission shall prescribe, specifying in detail the amounts of income received by him from all sources, together with the amount of income received by his wife and each child under eighteen years of age residing together with him as members of the family, and such other information as the commission shall deem necessary to enforce the provisions of this chapter. In case any person shall fail, neglect or refuse to make return when notified by the assessor of incomes so to do, such assessor shall estimate and assess his taxable income according to his best judgment and give notice thereof by mail. Any person who receives a taxable income during the year must report the same in the manner and form herein provided to the assessor of incomes, whether notified to do so or not, and shall be subject to the same penalties for failure to report as those who receive notice.

Chapter 71.09 (13). Every partnership shall furnish to the assessor of incomes a true and accurate statement, on or before March fifteenth of each year, except that returns for fiscal years ending on some other date than December thirty-first, shall be furnished within sixty days after the last day of such year, in such manner and form and setting forth such facts as the tax commission shall deem necessary to enforce the provisions of this chapter. Such statement shall be made upon the oath or affirmation of one of the members of said partnership.

PROPER BLANKS FOR FILING RETURNS

Corporations must report on special blanks provided and distributed by the Wisconsin Tax Commission at Madison, Wisconsin. Individuals and partnerships must report on special blanks distributed by the Assessors of Incomes of the various assessment districts.

METHODS OF ASSESSMENT AND TAXATION RATES

(a) *Corporations.*

The incomes of all corporations are assessed by the Wisconsin Tax Commission and taxes are computed on net taxable income as defined in the statutes at the following rates:

(1) Normal Taxes

Income	Rate
Up to $1,000	2 %
Between $1,000 and $2,000	2½ %
Between $2,000 and $3,000	3 %
Between $3,000 and $4,000	3½ %
Between $4,000 and $5,000	4 %
Between $5,000 and $6,000	5 %
Over $6,000	6 %

(2) Surtaxes

The teachers' retirement fund surtax rate is one-sixth of the normal tax rate for incomes in excess of three thousand dollars. The surtax is computed only on incomes in excess of $3,000.

(b) *Partnerships.*

Individuals carrying on business in partnerships are liable for income tax only in their individual capacity. The partnership must file a return, however, and the net income disclosed on such return is assessable to the individual member whether distributed or not.

(c) *Individuals.*

The incomes of individuals are assessed by the assessors of incomes of the various counties and taxes are computed on net income less exemptions at the following rates:

(1) Normal Taxes

Income	Rate
Up to $1,000	1 %
Between $ 1,000 and $ 2,000	1¼ %
Between $ 2,000 and $ 3,000	1½ %
Between $ 3,000 and $ 4,000	1¾ %
Between $ 4,000 and $ 5,000	2 %
Between $ 5,000 and $ 6,000	2½ %
Between $ 6,000 and $ 7,000	3 %
Between $ 7,000 and $ 8,000	3½ %
Between $ 8,000 and $ 9,000	4 %
Between $ 9,000 and $10,000	4½ %
Between $10,000 and $11,000	5 %
Between $11,000 and $12,000	5½ %
Over $12,000	6 %

(2) Surtaxes

The teachers' retirement fund surtax rate is one-sixth of the normal tax rate for incomes in excess of three thousand dollars. The surtax is computed only on income in excess of $3,000.

INDIVIDUAL PERSONAL EXEMPTIONS

Section 71.05 (1) Exemptions. There shall be exempt from taxation under this chapter income as follows, to-wit:

(a) To an individual, income up to and including eight hundred dollars.

(b) To husband and wife or head of a family, sixteen hundred dollars.

(c) For each child under the age of eighteen years, three hundred dollars.

(d) For each additional person, who is actually supported by and entirely dependent upon the taxpayer for his support, three hundred dollars. In computing said exemptions and the amounts of taxes payable by persons residing together as members of a family, the income of the wife and the income of each child under eighteen years of age shall be added to that of the husband or father, or if he be not living, to that of the head of the family and assessed to him, except as hereinafter provided. The taxes levied thereon shall be payable by such husband or head of the family, but if not paid by him may be enforced against any person whose income is included in the assessment.

DEDUCTIONS (EXPENSES INCIDENT TO THE PRODUCTION OF INCOME)

(a) *Office Rentals.*

If a physician pays rent to another person for office space, he may deduct all such amounts paid from gross income in determining net income for assessment. If he rents a home and uses a part thereof as his office, he may deduct a fair proportion of total rent paid as a business expense. If he owns a home and uses a part thereof as his office, no deduction for rent may be made. He may, however, deduct a fair proportion of depreciation, repairs, and taxes on his home as a business expense.

(b) *Automobile Expenses.*

Any physician may deduct from his gross income the cost of maintaining an automobile used exclusively for professional duties as well as taxi hire and carfares while on professional calls. He may not deduct, however, the original cost of the automobile but may deduct instead depreciation actually sustained. Any fair rate is acceptable and the circumstances of individual cases will govern. War tax paid on the original purchase of an automobile is not deductible, but constitutes part of the basic cost subject to depreciation.

If an automobile is used both for personal and professional purposes, the deductions outlined in the preceding paragraph are limited to those expenses directly attributable to its professional use. In this case a fair percentage of the total automobile expenses incurred during the year may be deducted as representing the cost of maintaining the automobile for professional purposes.

If a chauffeur is employed to drive the physician's car his salary may be considered as part of the expense of maintaining the automobile and is deductible subject to the rules laid down in the two preceding paragraphs.

(c) *Salaries of Assistants.*

Salaries paid to nurses, laboratory assistants, stenographers and clerical help may be deducted by the physician as long as their duties are entirely within the scope of the physician's professional capacity. If a maid is employed both to take care of his office and to assist in his home, however, only that portion of her salary earned in taking care of the office may be deducted.

(d) *Medicines, Instruments and Supplies.*

The cost of medicines and supplies actually used during the year may be deducted from gross income for assessment purposes. The cost of medical instruments of a life of less than one year may be deducted also as an expense.

Medical instruments with a life in excess of one year, however, may not be deducted. The cost of such instruments constitutes a capital expenditure and should be depreciated. Depreciation actually sustained on medi-

cal instruments and computed at a fair rate may be deducted from gross income. No fixed rates of depreciation has been laid down for assets of this character and the use to which the asset is subjected will govern. In determining this rate, however, loss in value due to use, wear, and tear alone will govern, and no loss in value, due to equipment becoming out of date can be considered.

(e) *General Office Expense.*

Expenditures for telephone, heat, light and water used within the professional scope of the physician may be deducted. Likewise a fair rate of depreciation on office furnishings and fixtures may be deducted. The ordinary rate of depreciation for assets of this character is 10%.

(f) *Library.*

A fair rate of depreciation on the physician's library may be deducted covering wear and tear sustained through use. In determining the rate, however, obsolescence may not be considered since the Wisconsin Income Tax Law does not recognize losses in value due to such causes. The fact that medical books become out of date during the course of ten years cannot be considered in determining the rate of library depreciation.

(g) *Taxes and Licenses.*

All taxes and licenses incident to the professional scope of the physician may be deducted. The following taxes would be deductible by any physician:

(1) Real property taxes paid on office owned by him and used by him in his practice.

(2) Personal property taxes paid on his apparatus and equipment.

(3) Income taxes paid.

(4) All license fees incident to his profession.

(5) Automobile licenses on automobiles used exclusively in the practice of his profession.

(h) *Professional Dues.*

Professional dues paid to professional associations to which the physician may belong in the interest of his profession may be deducted as well as subscriptions to all medical journals and scientific publications.

(i) *Losses on Bad Accounts.*

If a physician has consistently kept his books on a "Cash Receipts and Disbursements" basis and has consistently reported his income in the same manner he may not deduct unpaid debts. Under this system he reports as income only such items as have actually been collected and all unpaid fees both good and bad have already been excluded from gross income.

If a physician has kept his books and reported his income on an "Accrual Basis" (reported as income all fees for services during the year both collected and uncollected and has deducted as expense all items whether actually paid or not) he may deduct all debts definitely ascertained to be worthless in the year covered by the report.

(j) Deduction may be made for the cost of malpractice insurance against civil actions. Such insurance cost is construed to be a legitimate business expense.

FEATURES OF FEDERAL PROHIBITION ACT AFFECTING MEDICAL PRACTICE

Wisconsin is divided into two permit districts, eastern and western. Counties in the eastern district are: Brown, Calumet, Dodge, Door, Florence, Forest, Fond du Lac, Green Lake, Kenosha, Kewaunee, Langlade, Manitowoc, Marinette, Marquette, Milwaukee, Oconto, Outagamie, Ozaukee, Racine, Shawano, Sheboygan, Walworth, Washington, Waukesha, Waupaca, Waushara and Winnebago. All other counties comprise the western district.

Headquarters for the eastern district are at 303 Transportation Building, Chicago, with a director in charge at the Gross Building, Milwaukee. Headquarters for the western district are at the Federal Building, St. Paul, with a director in charge at 317 First Central Bldg., Madison. All communications and applications should be addressed to Federal Prohibition Administrator, at Chicago or St. Paul, depending on district in which the writer resides.

Any physician licensed by the State Board of Medical Examiners to practice medicine in the State of Wisconsin, and actively engaged in the medical profession, may, upon application, receive a permit from the federal government authorizing him to prescribe intoxicating liquors for medicinal purposes, and also, to procure a limited amount of whiskey for office emergency cases, and a limited amount of alcohol for other than internal use.

PROCEDURE TO OBTAIN BASIC PERMIT

A physician who desires to obtain a basic permit to prescribe or to procure intoxicating liquors for office use will, upon request, be furnished with the regular application Form 1404, which reads as follows:

"The undersigned ..... hereby makes application for a permit to:

"1. Prescribe intoxicating liquors for medicinal purposes to persons under his personal medical treatment, supervision and attendance in accordance with the United States Laws and Regulations.

"2. Procure six quarts of liquor during one calendar year—such liquor to be administered to patients for medicinal purposes only, in cases of emergency.

"3. Obtain alcohol to be used in compounding medicines; alcohol also to be used for sterilizing instruments and other than internal purposes. Quantity for these purposes not to exceed 5 wine gallons during a calendar year."

This application must be executed in triplicate, according to directions which are given the physician in a letter which is enclosed with the application blanks. The subject matter of the application should be read carefully, and a checkmark should be placed at each paragraph which describes a privilege the physician wishes to obtain. If the first paragraph only is checked, the permit will authorize the physician to prescribe only. If the physician should later in the year wish to obtain whiskey and alcohol for office use, he may apply for an amendment to his permit. However, the

additional work and delay of having his permit amended may be avoided by the checkmarking of all three paragraphs at the time of making application, the actual purchase of the liquor to be made at any time during the year as the physician finds it necessary.

DURATION OF PERMIT

Permits issued before September 1st of any year, become effective at once and expire on December 31st of that year. Permits issued after September 1st, become effective at once and remain in force until December 31st of the next year.

USE OF PRESCRIPTION BOOK

When a physician receives his first permit to prescribe, he, at the same time, receives a prescription book containing one hundred prescriptions printed by the government on special watermarked paper. If upon examination the physician finds his patient to be suffering from some specific ailment for which, in his opinion, intoxicating liquor is the best remedy, (the prescribing of liquor except in such cases is a violation of law), he will write on the prescription with pen or indelible pencil, his federal permit number, the actual date of issuance of prescription, the full name and address of the patient, his own full name and address and the amount and kind of liquor prescribed. The amount of liquor must not exceed the amount actually needed in the treatment of the specific ailment for which the prescription is written. The regulations provide also—"That only spirituous and vinous liquor may be prescribed for medicinal purposes, and all permits to prescribe and prescriptions for any other liquor shall be void. No physician shall prescribe nor shall any person sell or furnish on any prescription, any vinous liquor that contains more than 24 per centum of alcohol by volume, nor shall anyone prescribe or sell or furnish on any prescription more than one-fourth of one gallon of vinous liquor, or any such vinous or spirituous liquor that contains separately or in the aggregate more than one-half pint of alcohol, for use by any person within any period of ten days."

Each prescription is attached to a stub, and the information entered on the stub furnishes a complete record of the use made of the prescription. A prescription book must last at least 90 days (the general rule—rare exceptions) and, unless recalled by the director, the prescriptions in any book may be used during a period of a year or two or longer. When all prescriptions in a book have been issued, the book of stubs must be returned to the director's office to be examined and placed on file. If the stubs show a legitimate use of the blanks, the director will issue and forward the physician a new prescription book.

RECORD BOOKS

Every physician who issues prescriptions for intoxicating liquor, must keep a record of each prescription issued in a special record book furnished upon request by the director. Full instructions as to the keeping of these records are printed on the first page of the book.

PROCEDURE FOR OBTAINING WHISKEY AND ALCOHOL

With every basic permit to procure whiskey and alcohol there is forwarded a blank Form 1410 to be used by the physician when he is in need of liquor for office use. Complete instructions for using it are printed on the back of the form. The form when executed, is returned to the office of the prohibition director. If approved by him, the vendee's copy of the permit to purchase is forwarded to the physician, who in turn forwards it to the druggist of whom he wishes to make the purchase. The druggist having received from the director the proper permit to sell this amount of liquor to this particular physician, fills the order as soon as he receives the vendee's copy from the physician.

FEES

The federal government charges no fee for permits issued under the National Prohibition Act.

POINTS TO REMEMBER

1. You must return your federal permit for amendment if you change your office address.

2. The physician issuing the prescription must *personally* fill in all data that is required. It is not permissible for an assistant to fill in a blank and then have the physician sign it.

3. Only one pint of whiskey may be prescribed for the use of an individual within any period of ten days.

4. A physician may prescribe up to the following limits:

A. Alcohol—one-half pint.

B. Whiskey, gin or rum—one pint.

C. Wine—one quart.

5. You must first obtain your federal permit and, second, after receiving your federal permit you must secure the state permit.

SPECIAL REGULATIONS

Art. 1

Procure six quarts of liquor during a calendar year, for so-called office or bedside use. This liquor is to be used where it is indicated in some ailment requiring liquor immediately and where the loss of time incident to obtaining the liquor from a druggist would result in intense suffering, aggravation of the ailment or loss of life. This liquor cannot be furnished to persons other than the patient and under no circumstances or conditions constituting a sale.

Art. 2

Treasury Decision No. 3934 modifies Section 1412 of Regulations 60 as follows—"provides that physicians, when writing prescriptions, Form 1403, shall not name therein the druggist or pharmacist who shall fill such prescription, and the space provided therefor in said Form 1403 shall be left blank."

Art. 3

A physician cannot obtain liquors for his own personal or office use on his own prescription, and it is illegal for a druggist or pharmacist to deliver liquors to a physician on his own prescription. Violations of this part of the law constitutes grounds for revocation of both the physician's and the druggist's permits.

EMERGENCY PRESCRIPTIONS

No physician shall issue any prescription for liquor other than on form 1403 except in case of an epidemic or a sudden and unforeseen accident or calamity, a physician holding a permit to prescribe may issue a prescription for intoxicating liquor upon a form other than 1403, where failure to issue such prescription might result in loss of life or intense suffering, but such prescription shall describe fully the accident or calamity or circumstances constituting the emergency because of which the unofficial blank was used. Such emergency prescription shall be prepared in duplicate and contain in the physician's own handwriting all the information called for on form 1403.

In case of a grave or sudden emergency, however, where great suffering or loss of life might result from the delay incident to writing upon the prescription blank, Form 1403, or emergency prescription as herein provided, full details as provided above, the physician may write in lieu of such details the words "grave emergency" and the duplicate copy of such emergency prescription, when sent to the Administrator, shall be acompanied by a statement of the details of such emergency.

The fact that a physician may be out of forms 1403 does not create an emergency or give him authority to write an emergency prescription, even though he has not used his quota of 100 each 90 days as allowed him by law.

WISCONSIN NEW SINGLE PERMIT LAW EXPLAINED

As result of presentation by the State Medical Society, the 1925 Wisconsin legislature amended the "separate permit" provision of the state prohibition enforcement act. Formerly three separate and distinct permits were necessary, namely, (1) Class A state permit to prescribe liquor only. An annual fee of $10 was required. (2) Class B state permit to obtain up to six quarts of liquor for emergency medicinal purposes and up to five gallons of grain alcohol for manufacturing purposes, tinctures, etc. An additional fee of $10 was required. (3) Class C state permit to use alcohol for sterilizing purposes only.

NEW SINGLE PERMIT LAW

For 1927, physicians may obtain all the privileges in a single permit on payment of a single $10 fee. The new law, effective January 1, 1926, grants to physicians, subject to the provisions of the State Prohibition Act and rules and regulations by the State Prohibition Commissioner, the privilege, (A) to prescribe liquor, (B) to procure liquor to be administered to patients for medicinal purposes in case of emergency, (C) to obtain liquor to be used in compounding medicines, and (D) to procure alcohol to be used for sterilizing instruments and for manufacturing tinctures, preparations and the like.

No permits will be granted to physicians for 1927 until they have complied with the provisions of the State Prohibition Act for 1921, 1922, 1923, 1924, 1925, and 1926 if they were subject to the act in any or all of those years. Applications will be mailed to all physicians holding a permit in 1926. Others may apply to the State Prohibition Commissioner, State Capitol, Madison. Checks should be made payable to the Commissioner.

The physician must fill out the application, print or have typewritten his name and address, insert his Federal Permit Number, obtain the approval of his District Attorney, sign and return application to the Commissioner before a state permit will be issued.

Prescriptions for intoxicating liquors may be issued only as provided in the National Prohibition Act. No such prescription may be issued for a minor unless necessary for health, such necessity to be attested to in a certificate in writing delivered by the physician to the parent or guardian of such minor (Sec. 165.01.9).

Prescriptions by Intoxicated Persons. Any physician, while in a state of intoxication, who shall prescribe any poison, drug or medicine to another person shall be punished by imprisonment in the county jail for not more than one year or pay a fine not exceeding $500 (Sec. 4603).

ESSENTIAL PROVISIONS OF FEDERAL NARCOTIC LAWS

Any person who prescribes, dispenses or has narcotic drugs or preparations in his possession, must register and pay special tax under this law, if they are legally qualified or permitted to dispense or prescribe medicines or drugs under the state law. A practitioner who makes his first application for registration under this law should apply to the Collector of Internal Revenue, Milwaukee, for form No. 678A and form No. 713. On the form No. 678A he will give his state registry number and the date of its issue. The name and address of two references must also be given. All spaces calling for information must be filled in. The form should be signed and sworn to. The form No. 713, inventory, must be filled in and sent with the application form No. 678A. If the applicant has no stock of narcotics on hand, he must state so on this form. If the application for registration should cover a partnership, then each partner must file a form No. 678A, following the same procedure as stated above. If the application for registration should cover the liability of a corporation, then each principal officer will file form No. 678A together with a copy of their articles of incorporation. The inventory form can be signed by either member or officer. All remittances must accompany the application and should be in the form of a certified check, draft or money order. The application should read as of the first of the month in which the applicant intends to do business up to June 30th next.

REREGISTRATION ON FORM NO. 678

On or about June 1st of each year, the Collector's office mails out forms Nos. 678 and 713 to each registrant. These forms must be filled in completely and returned with the proper remittance on or before July 1st of each year in which liability is incurred.

Registration under the Harrison Narcotic Law expires June 30th. It should be renewed on or before that date by physicians who desire to continue to administer, dispense or prescribe narcotics. Failure to register carries with it liability to a two thousand dollar fine or to five years' imprisonment, or both, and in any event will subject the tardy registrant to a 25 per cent increase in his tax. Physicians who distribute, dispense or administer narcotic drugs of all kinds must register in Class 4, and pay a tax of one dollar. Physicians who dispense any of the so-called exempt preparations must register also in Class 5. A physician registered in Class 4 and registering in Class 5 also is not required to pay any additional tax because of registration in the latter class, but a physician registering in Class 5 only is required to pay a tax of one dollar. The so-called exempt narcotic preparations are defined by the Harrison Narcotic Law to include such as contain not more than 2 grains of opium, or more than one-fourth grain of morphin, or more than one-eighth grain of heroin, or more than 1 grain of codein, or any salt or derivative of any of them in 1 fluid-ounce, or, if a solid or a semi-solid preparation, in 1 avoirdupois ounce; and liniments, ointments or other preparations which are prepared for external use only, except liniments, ointments and other preparations which contain cocain or any of its salts, or alpha or beta eucain or any of their salts or any synthetic substitute for them. A preparation, to be exempt, must contain active medicinal drugs, other than narcotics, in sufficient quantity to give the mixture valuable medicinal qualities other than those possessed by the narcotic drug alone. Simple dilutions of narcotic drugs made by mixing them with inert or nearly inert substances are not within the exemption.

Article 143. A preparation containing a narcotic drug in accordance with the foregoing is exempt from stamp tax and the requirements pertaining to taxable narcotics only when manufactured, sold, distributed, given away, dispensed or possessed as a medicine. A manufacturer may produce and sell as exempt only preparations readily capable of use for claimed medicinal purposes, and sales thereof, if not to consumers must be made only to persons registered in Class 5. Sales made to consumers either by manufacturers or dealers, must be made only in such quantities and with such frequency to the same purchaser as will restrict their use to the medicinal purposes for which intended.

The provisions of Art. 146 entitled "Private Formulae" are hereby revoked, and this article must accordingly be considered stricken from the regulations.

Approved Nov. 4, 1925. A. W. Mellon, Secy. of Treas., D. H. Blair, Commissioner Int. Revenue.

Physicians should study carefully the scope of the definition of the so-called exempt narcotic preparations stated above, and should determine whether they dispense any of them. If they do, registration in Class 5 is necessary, and with such registration goes the obligation to keep a record of all the so-called exempt narcotic preparations dispensed. Paradoxical as it may seem, the physician who dispenses such relatively inert preparations will find himself compelled to keep a record of such as he distributes even to bona fide patients on whom he is in professional attendance, whereas he may dispense the more potent narcotic drugs without being required by law to keep any record of them. This situation has been brought about, however, by legislation enacted by Congress in 1918, and it can be altered only by Congress. The Commissioner of Internal Revenue is simply discharging his duty when he enforces the law.

At the time of applying for registration or reregistration, the physician must file an inventory of all narcotic preparations he has on hand. If he is registered in Class 4 only, the inventory must include all taxable narcotic drugs and preparations on hand in the physician's regular dispensing stock, if any. If he is registered in Class 5, he must file a separate inventory, but this need not include the so-called exempt narcotic preparations, but only such taxable narcotic drugs as may have been set aside for the purpose of the manufacture of such exempt preparations and remedies. If no preparations except such as are within the exempt class are on hand, the inventory must be filed, nevertheless, and across its face should be written, "Nothing on hand." Proper forms for the preparation of inventories will be furnished by the collector of internal revenue with whom registration is to be effected.

INVENTORIES

Inventories can be taken on any date after January 1st. This inventory can then be listed on Form No. 713 as of that date. If the proper application forms are not received by a registrant he should apply to the Collector's office for a duplicate set.

SPECIAL TAX STAMPS

After the application has been received with the proper remittance in the Collector's office, a special tax stamp will be issued covering the period for which tax has been paid. This special tax stamp must be posted in a conspicuous place in the taxpayer's office or place of business. Should a special tax stamp become lost or mutilated, the taxpayer should file an affidavit to this effect with the Collector so that a certificate in lieu of the special tax stamp can be issued. In the event that a taxpayer changes his address, he should apply for Form 678, transfer, within the month in which such change takes place.

NARCOTIC ORDER FORMS

Any narcotic drugs purchased by a registrant under the narcotic law must be purchased on an official order form from a wholesaler or a manufacturer. The only items that a retail dealer can sell on an official order form is a one ounce aqueous solution. The practitioner should never issue a prescription for narcotics for his own office use. In order to obtain the proper narcotic forms, the registrant should apply to the Collector of Internal Revenue for Form No. 679. This

form must be filled in completely and returned with a remittance of ten cents. When issuing a form to a wholesaler or manufacturer or to a retail dealer for an aqueous solution, the registrant must personally sign this form. Clerks or other office help cannot sign these forms unless the proper power of attorney has been filed with the Collector's office. Care should be exercised in executing these orders. Where narcotic order forms are lost or stolen, a report should be made immediately.

PRESCRIPTIONS

A prescription is a form authorized by the Commissioner of Internal Revenue, approved by the Secretary of the Treasury to legalize the possession of narcotic drugs only where the prescription is issued by a duly registered practitioner to his patient. A prescription must never be used for purchasing office supplies. Prescriptions must only be issued for legitimate medical purposes. When issued to an addict to supply him with his regular amount of narcotics to keep him comfortable, it would be a violation of the Harrison Narcotic Law. Practitioners who issue such prescriptions, the person filling same, and the person receiving the drugs thereon, would become liable Exceptions to this rule and regulation are where physicians prescribe for an incurable disease such as are recognized by the medical profession or where the prescription was issued to an aged and infirm addict. With reference to the two exceptions outlined above each registrant should supply himself with mimeograph No. 316, which outlines the treatment of narcotic drug addicts permissible under the Harrison Narcotic Law. This mimeograph will be sent upon request. In executing or writing prescriptions a physician must date and sign the prescription as of the date when it was issued. The prescription must bear the full name and address of the patient and the name, address and registry number of the practitioner. The prescription must be written in ink or indelible pencil. Where a physician writes a prescription for an incurable or an aged and infirm addict and where such prescription will be written for an undeterminable length of time, he should endorse thereon either exception No. 1 which covers the treatment of incurable diseases or exception No. 2 which covers an aged and infirm addict. Although the law does not state the amount which a physician should prescribe, he should in all cases prescribe the minimum quantity necessary for the treatment of his certain case.

DISPENSING-RECORDS

Practitioners are permitted to dispense narcotics to bona fide patients without prescriptions or order forms. However, a record of drugs so dispensed must be kept except when the practitioner is in personal attendance upon the patient. A practitioner is not regarded as a personal attendant upon a patient within the intent of the statutes unless he is in personal attendance upon such patient away from his office. The record of dispensing narcotic drugs should show the quantity of narcotic drugs or preparations dispensed or administered, the name and address of the person to whom dispensed or administered and the purpose for which it was dispensed or administered. With reference to registrants such as dentists, oculists, aurists, or other specialists engaged in a lawful profession, who administer in their office practice minute quantities of narcotics in the form of solutions, may keep a record of the date when a stock solution is made or purchased and the date when such stock solution is exhausted. Where pastes or ointments are made or purchased, a record of the date when the container is first opened and the date when its contents are exhausted may be kept.

GENERAL

A practitioner should report all cases of addiction coming to his attention, also file a statement of all legitimate incurable cases where prescriptions will be issued for a certain period. These reports are not compulsory by law but they will aid the taxpayer and the government in ferreting out the unscrupulous addict.

MAIN PROVISIONS OF WISCONSIN NARCOTIC LAW OF 1923

This stringent enactment affects the right of the physician to administer narcotic drugs, limiting their application by careful safeguards and protecting the physician in his necessary use of them for the relief of pain and suffering. Codein sales are limited to one grain, and heroin to one-eighth grain. Narcotic drugs are listed as opium, codein, morphin, heroin, and alpha or beta eucain. Prescriptions shall be kept on file for two years. Prescriptions must be written in English or Latin. They shall always be open to inspection by authorized officials.

Prescriptions must only be issued in good faith. Narcotic drugs may not be provided for any person when not needed for treatment and cure of a disease or ailment, nor for any condition arising from the drug habit. A physician may administer any narcotic drug in the legitimate practice of medicine when believed necessary for the alleviation of pain, and shall keep a complete record of the case, showing kind and amount of drugs dispensed, date, and name and address of patient, except such drugs as may be dispensed by a physician to his patient upon personal attendance.

The ailments or acute conditions specifically enumerated for which physicians may legitimately prescribe narcotic drugs include influenza, renal calculi, broken limbs, and such frequently incurable diseases as cancer, tuberculosis, etc., and for the relief of acute pain. Such drugs may not be prescribed by a physician to an addict except where the patient is being treated by him for the cure of the habit.

A physician or other person may not advertise to sell narcotic drugs or any treatment embodying drug administration.

Only a physician and other specifically authorized persons may have in their possession instruments adapted for the use of narcotic drugs. Possession by others is prima facie evidence of their unlawful use.

Anyone authorized to administer narcotic drugs to

others is prohibited from administering them to himself.

Penalties for violations of these provisions are severe, ranging from fines of $100 to $1,000 to prison terms (Sec. 146.02).

PHYSICIANS MUST COMPLY WITH MANY STATE HEALTH LAWS AND RULINGS

COMMUNICABLE DISEASES

Contagious Diseases, suspected cases, etc. Conveyance, or permission for conveyance, of any case of dangerous, communicable disease by public vehicle or to any public place, particularly as it may subject other persons to contracting such disease, shall be cause for arrest and punishment as provided in Section 4608d.

Conveyance between communities may be legitimately made with the consent of the health officers at points of departure and entrance, provided the public is protected.

Vaccination for Smallpox. When vaccination or exclusion from school is ordered in times of epidemic, the local board of health shall provide for the free vaccination of all children in any school district or part thereof during such outbreak, the expense to be borne by the district. Parents may employ physicians of their choice to perform such vaccinations and shall pay the expense incurred (Sec. 40.71).

Printed Report Forms. The blanks to be used by physicians and others in reporting cases of dangerous communicable disease to the health officer are furnished by the State Board of Health to the local health officers for distribution among the physicians and other persons residing in their district.

Expense of Cultures. The expense of taking release cultures after recovery from diphtheria and the disinfection of persons and premises is a part of the expense of maintaining quarantine and must be paid by the town, village or city. The release cultures must be taken by or under the direction of the local health officer (Attorney General's opinion).

Quarantine of Physician. If a physician's home is quarantined, he may remain as a member of the family and is then subject to the quarantine as other persons are, or he may live outside and visit his home in the capacity of a physician (Attorney General's opinion).

Reporting of Cases. A physician is required to report in writing within 24 hours all cases of communicable disease to the health officer (Sec. 143.04). (All suspicious cases must be reported and treated as positive until a correct diagnosis can be made. Any neglect or refusal of a physician or householder to report cases of communicable disease makes him liable to a severe fine.)

Quarantinable Diseases. Cerebrospinal meningitis (epidemic), cholera (Asiatic), diphtheria, infantile paralysis, plague, scarlet fever, smallpox, typhus fever, yellow fever.

Placardable Diseases. Chickenpox, influenza, leprosy, measles, German measles, typhoid fever, whooping cough.

Reportable Only. Erysipelas, lethargic encephalitis, mumps, ophthalmia neonatorum, pneumonia, trachoma, tuberculosis.

Posting of List. The official list of communicable diseases is required to be posted in every physician's office (also in every hospital). (Sec. 143.04.) The list is furnished free on cardboard by the State Board of Health.

Diagnosis. In diagnosing communicable diseases, physicians shall use ordinary skill and bacteriological examination if that is of value in determining the true condition (Sec. 143.04).

Penalty. For violation of any of the above laws, except that concerning posting of diseases, physicians are liable to fines ranging from $5 to $100, or imprisonment, or both; and for a second offense are subject to suspension of their license to practice for one year (Sec. 143.04.10).

Privilege Under Quarantine. Physicians are among the few individuals specified by law as permitted to enter premises quarantined for communicable disease (Sec. 143.05).

Tuberculosis. Every physician is required to report within one week cases of tuberculosis in his care or under his observation. The report shall contain the name and address, age, sex, and occupation. The physician shall notify the health officer within 24 hours of the vacation of any place by death from tuberculosis or by removal of a consumptive (Sec. 143.06).

Venereal Disease. All physicians and certain institutions are required to report directly to the State Board of Health all cases of venereal disease in a communicable state that come to them for treatment (Sec. 143.07).

A printed form, furnished by the State Board of Health, is used for reporting, and a serial number, not the name of the patient, may be given to each case. Printed instructions for the patient are attached to this report blank and are required to be given to him. Secrecy is imposed upon the State Board (Sec. 143.07).

The State Board of Health requires that the source of infection be inquired into and reported back to the Board for the purpose of investigation. All persons having a venereal disease must remain under treatment until no longer communicable. Discontinuance of treatment may be the cause for commitment to an institution until no longer communicable (Sec. 143.07.2, 4, 5).

Arsphenamine and neo-arsphenamine are furnished occasionally free to doctors for indigent cases where the doctor wishes to give the treatment without compensasion. Physicians having patients unable to pay for treatment for venereal disease may assign such individuals for treatment at state clinics.

When a patient refuses treatment the physician shall notify the State Board of Health, giving particulars, to enable the Board to act and to have the person committed for treatment (Sec. 143.07.5).

When a physician has reported a case of venereal disease to the State Board of Health, all questions regarding the presence of the disease and the date from which treatment was neglected shall not be regarded as privileged information when the patient or physician is called upon to testify to the facts before any court of record (Sec. 143.07.7).

Physicians shall be furnished free of charge with the results of examinations for the diagnosis of gonorrhea made by any state laboratory, and of examinations of blood or secretions for the diagnosis of syphilis from the state psychiatric institute (Sec. 143.07.10).

Infant Blindness. The attending physician (or midwife) is required to use a one per cent silver nitrate solution in the eyes of newborn babies. For the prevention of ophthalmia neonatorum the State Board of Health is required to supply the solution free to every physician (and midwife), put up in proper containers and distributed to health officers for delivery to practitioners.

When ophthalmia neonatorum appears in any newborn babe not attended by a physician or midwife and the case is reported, as required, to the health officer, a competent physician shall be employed by the municipality to examine and treat the case as directed in the instructions accompanying the solution. The penalty for violation of any part of this law is a fine up to $100 (Sec. 146.01).

VITAL STATISTICS

Registration With Local Registrars. Upon locating for the practice of medicine, physicians are required to register their name, address and occupation with the local registrar of vital statistics, and by him be supplied with the laws, rules and regulations for the enforcement of the vital statistics law (Sec. 147.03).

Registration of Births. Physicians shall file within five days certificates of births attended by them. Such reports are to be made to the local registrar of the district in which the births occur. All particulars shall be given in the space provided. All bills or charges for professional services rendered in connection with confinements are declared unlawful and need not be paid until the birth certificate, properly filled out, is filed as provided in Sec. 69.26.

Illegitimate Births. In the case of a child born out of wedlock, the physician shall not fill in the name of the supposed father until legal proceedings shall have adjudged the paternity of the child (Sec. 69.28.21).

Certificate of Birth Before Child Is Named. When a certificate of birth is presented without the given name, the local registrar shall make out and deliver to the parents a special blank for the supplemental report of such given name (Sec. 69.30).

Stillbirths, Registration Required. In stillbirths the attending physician shall register the children as births and deaths, with the explanatory word "stillbirth." The medical certificate shall state the cause of birth as "stillbirth," if known: whether a premature birth; and, if born prematurely, the period of utero-gestation in months, if known (Sec. 69.32).

Report of Congenital Deformities. Physicians shall report to the State Board of Health within 24 hours after the birth of any child with a deformity or physical defect, such report to be separate from and in addition to the birth certificate, and shall explain fully the nature of the defect. They may also make suggestions and recommendations as to the care, treatment or correction of such deformities or defects (Sec. 69.29).

Registration of Deaths. Physicians shall make and sign certificates of deaths occurring in their practice, giving such data as are called for in the certificate form. The certificate shall be made by the physician last in attendance, and shall specify the time in attendance, the time he last saw the deceased alive, and the hour of the day when death occurred. He shall further state the cause of death so as to show the course of disease or sequence of causes resulting in death, giving the primary and immediate causes, and also the contributory causes, if any, and the duration of each. Causes of death which may be the result of either disease or violence shall be carefully defined, and, if from violence, its nature shall be stated, and whether accidental, suicidal or homicidal. In case of deaths in hospitals, institutions, or away from home, the physician shall furnish the special information required, and shall state where in his opinion the disease was contracted. The cause of death and all other facts shall in all cases be stated in accordance with the rules and regulations of the state registrar (Sec. 69.36).

Death Without Physician. In the absence of a physician at death, any physician may be employed for the purpose of making a proper death certificate, upon request of the local registrar (Sec. 69.37).

Coroner's Duty. A coroner cannot enter the cause of death except in cases where a coroner's inquest is held (Attorney General's opinion).

Charge for Certificate Prohibited. A physician is prohibited from making a charge for filling out the certificate of the cause of death, under penalty of a fine (Attorney General's opinion).

GENERAL

State Laboratory of Hygiene. Physicians shall be furnished free of charge with results of laboratory analyses of specimens sent for determining diagnosis of disease (Sec. 36.225). These laboratories include the central laboratory in Madison, branch laboratory at Rhinelander, and cooperative laboratories at Oshkosh, Green Bay, Superior, Beloit, Kenosha, and Wausau.

The materials which are examined in these laboratories are sputum for tubercle bacilli, swabs for diphtheria bacilli and other organisms, pus for gonococci and other organisms, central nervous systems of dogs and other animals for Negri bodies diagnostic of rabies, spinal fluid for meningococci and other organisms, materials in suspected cases of anthrax, glanders and actinomycosis, blood, feces and urine for the diagnosis of typhoid fever, or to detect carriers of these germs, and chemical and bacteriological examinations of water to detect its fitness for drinking purposes. The cooperative laboratories are required to do tissue examinations for the diagnosis of malignancy. Such tests are made free for physicians.

State Biological Products. Under the law, local boards of health are required, under the direction of the State Board, to furnish antitoxin free to indigents suffering from certain communicable diseases. Diphtheria antitoxin, tetanus antitoxin, smallpox vaccine, diphtheria toxin for Schick test, combination Schick test and control outfit, diphtheria toxin-antitoxin mixture, anti-meningococcus serum and anti-rabic serum are furnished to localities at special prices made possible by the State Board of Health by arrangement with the manufacturers. Distributing stations for these products are located in every county.

Wassermann Test Free. Upon application to the Psychiatric Institute physicians may arrange to have the Wassermann test made for their patients, or to make chemical examinations of the cerebrospinal fluid, free of charge. The Psychiatric Institute is located at the University, Madison (Sec. 46.13).

Venereal Disease, Indigents. The county is required to pay for the care and treatment of indigent persons afflicted with a venereal disease (Attorney General's opinion).

Drugs Limited to Prescriptions. The sale of prescription or recommendation of any drug for the treatment of venereal diseases may be done only through written prescription issued by a licensed physician (Sec. 143.07.11).

Information. Section 146.15 requires that physicians of mining, manufacturing and other companies, and certain officials, shall upon request furnish to the State Board of Health any information touching the public health, and for refusal shall forfeit ten dollars.

Corpses, Duty of Physician. Disinterred corpses are declared dangerous to health and may not be transported unless authorized by a permit from the health officer, showing name, age, place, and medical attendant. Local health officers shall refuse permit when the cause of death is given as heart failure unless the physician in charge states that the cause was not diphtheria (Sec. 155.01).

Privileged Communications. No physician shall be permitted to disclose any information acquired in attending any patient professionally. In any civil action brought by such patient or criminal proceeding for malpractice, whenever such patient shall have first given evidence relating to such information the physician may disclose such information as a witness in his own behalf. Such disclosure also is permitted with the written permission of the patient, or of his relatives in case of the patient's death.

Physician Protected from Liability. A physician who reports to the State Board of Health the name of a person afflicted with a venereal disease on account of such person not continuing treatments until the disease is no longer communicable will be protected from liability, if the facts justify his action (Attorney General's opinion).

Industrial Illness, Occupational Diseases. Every medical practitioner shall report to the State Board of Health cases of poisoning from lead, phosphorus, arsenic or mercury or their compounds, or compressed air illness contracted in employment, giving patients' names and addresses and the type of diseases suspected. A fine of $10 is applicable for failure to comply with this section (Sec. 69.49).

Prenatal Letters. Upon receipt of the name and address of expectant mothers, sent by physicians, nurses, and others, the Bureau of Child Welfare of the State Board of Health will send a series of nine monthly prenatal letters to such patients. These letters contain definite information regarding the general hygiene to be followed by the expectant mother. She is advised when to see her physician, what food to eat, how to prepare for confinement at home, and given other valuable information.

RULINGS ON HEALTH ADMINISTRATION

Disagreement on Diagnosis. If two or more physicians disagree upon a diagnosis of a communicable disease, what is the duty of the health officer? Answer: If the health officer is a layman, he should select a physician to make a diagnosis for him and handle the case accordingly.

Tests for Quarantine Release. If tests are required for release from quarantine, who is to make them? Answer: The health officer or someone designated by him, either a physician, nurse, or an individual especially trained to take such tests. Such material should be at once sent to a state laboratory.

Swabs, When Accepted. May swabbings taken by the attending physician be accepted in releasing from quarantine? Answer: No, unless the attending physician has been authorized by the health officer to make such swabbings. If so, they are accepted.

Qualification as Joint Health Officer. A physician can legally qualify as health officer of two adjoining towns although he may live in another jurisdiction (Attorney General's opinion).

PROVISIONS OF STATE HOSPITAL ACT AFFECTING PHYSICIANS

The primary objects of the hospital are to furnish facilities for the care of patients who now lack adequate provision, and to furnish facilities for teaching and the advancement of medical knowledge.

142.01. Public patients. A resident of Wisconsin who is afflicted with a deformity or ailment which can probably be remedied or advantageously treated, if he or the person liable for his support is financially unable to provide proper treatment.

142.02. Application. When the case of such person shall come to the notice of a sheriff, county supervisor, town clerk, health officer, health nurse, poor commissioner, policeman, physician, or surgeon, or any public official, he shall and any teacher, priest or minister may, file with the county judge an application for his treatment at such hospital.

142.03. Investigation. (1) The application shall be in such form as the county judge shall direct, and shall contain a full statement of the financial situation of the person and a general statement of his physical condi-

tion, and shall be verified. The county judge shall make investigation and the supervisor for the town, village or ward of the residence of the person shall supply to the court, on request, all material information within his knowledge.

(2) The judge, if satisfied that the required facts exist, shall appoint a physician of said county personally to examine the person. The physician shall make a verified report in writing, within such time as the court shall direct, setting forth the nature and history of the case, and such other information as will be likely to aid in its treatment and giving his opinion whether the condition of the person can probably be remedied, or should be treated, at a hospital, and any information within the knowledge of the physician relative to his financial situation. The physician shall be paid by the county, five dollars, and actual and necessary expenses.

(3) The faculty of the medical school of the university shall prepare blanks for examining physicians. Such blanks shall be printed by the university, and mailed to each county court upon request. Physicians shall report in duplicate on said blanks, and if the application is granted one copy shall be sent to the hospital.

142.04. Findings and order. If the court shall be satisfied that the required facts exist and that the person should be treated at the Wisconsin general hospital, he shall so find and enter an order granting the application. If the court is not so satisfied, he may make further investigation. If the court does not find the required facts, he shall enter an order denying the application. Upon granting the application, he shall ascertain from the superintendent of the hospital whether the person can be received as a patient, and if he can the court shall certify his order to the hospital and to the county clerk.

142.05. Conveyance to hospital. If the patient is unable to travel alone, the court may appoint a suitable person to take him to said hospital, and such person shall receive actual and necessary expenses, and, if not a salaried officer, a per diem of three dollars per day going and returning; and the same shall be paid by the county.

142.06. Discharge of patients. When the superintendent of the hospital is of the opinion that a county patient is cured, or no longer needs treatment or cannot benefit thereby, he shall discharge the patient. If the patient is unable to travel alone, the superintendent shall notify the county judge who shall appoint some suitable person to bring the patient back. Such person shall receive expenses and compensation as provided in section 142.05.

142.07. Hospital charges. (1) The Wisconsin General hospital shall treat patients so admitted at rates based on actual cost as determined by the board of regents of the university. Payments made by such patients shall be credited to their account. Patients may be admitted without certificate, but the cost of their care shall not be a point charge against the state and county, except when such patients are admitted in an emergency pending action of the county court. If the court grants the application the charges against state and county shall date from his admission.

(2) No compensation shall be charged against or received from any patient by any officer of or person employed by the hospital other than the compensation provided by the board of regents of the university.

142.08. Reports; payment of charges. The net cost of caring for a certified patient shall be paid one-half by the state and one-half by the county of his residence.

For complete information see The Journal, September, 1924.

LAWS AND RULINGS GOVERNING MEDICAL LICENSURE IN WISCONSIN

For a complete statement of laws on "Treating the Sick" the members are referred to The Journal for September and October, 1925. In general, all desiring to treat the sick must first secure a certificate of registration from the State Board of Examiners in the Basic Sciences prior to making application for license to practice. Certificate may be secured by examination or reciprocity. The Board meets four times each year. The Secretary is Prof. M. F. Guyer, Department of Zoology, University of Wisconsin, Madison.

A license to practice medicine and surgery is obtained by reciprocity or examination from the State Board of Medical Examiners, Dr. Robert E. Flynn, State Bank Building, La Crosse, Secretary. Examinations are conducted in January and June. Applications with all required credentials must be completed two weeks prior to date of examination. Applicants are advised to secure copy of regulations from the Secretary of the Board for complete information.

Under no conditions will the Board grant a temporary permit to practice.

Wisconsin reciprocates with any state where the applicant meets the requirements as prescribed in the State Medical Practice Act. A practical examination is required from all applicants in states requiring such examination from Wisconsin applicants. A year's internship is the equivalent of a year of practice, either of which must have been obtained subsequent to the issuance of their license.

Applicants from foreign countries must comply with special regulations.

SAVE THIS SUPPLEMENT FOR REFERENCE PURPOSES

THE INDIVIDUAL PHYSICIAN AND THE AMERICAN MEDICAL ASSOCIATION

"Why should I be a Fellow of the American Medical Association?

"In what way do its activities affect me, the individual practitioner of medicine?"

These are fair questions. You who are invited to be a Fellow have a right to ask for evidence that the Association is functioning actively in the interests of physicians. The following partial inventory of its activities is therefore presented. It shows in a brief way what the American Medical Association means to physicians individually and to the profession in general. Every members in good standing is eligible for Fellowship. All that is necessary to qualify is to make application and subscribe for The Journal.

HOW THE ASSOCIATION FUNCTIONS

A large, nation-wide organization must necessarily delegate its activities to smaller bodies or to individuals. The House of Delegates of the Association, composed of delegates elected by its constituent state associations, determines its policies. The Board of Trustees is the governing body in the interval and is charged with the duty of administering the affairs of the Association.

The work of the American Medical Association is carried out largely through its executive officers, its various councils, its bureaus and its publications. Every Fellow and member should consider these as his representatives.

MEDICAL EDUCATION AND HOSPITALS

This body has brought the standards of both premedical and medical education to a basis by which they are recognized throughout the world. Through its activities, extremes have been avoided, although college entrance requirements have been raised to a reasonable point, college sessions have been lengthened, courses reorganized, better buildings and laboratories secured, better equipment provided, including libraries and museums, more and better teachers employed, better clinical material obtained and more improved methods of teaching adopted. Detailed information concerning all schools is maintained in the secretary's office. Undergraduate institutions are inspected and rated as "Class A," "Class B" or "Class C." All possible cooperation is given to an institution in its effort to raise its classification. There are now seventy "Class A" schools and the opportunities for a medical education in America are equal to those found anywhere.

In cooperation with state licensing boards, the Council works to secure better reciprocal relations for physicians and to improve medical practice laws. The Council also has elaborate facilities through which detailed information in regard to all medical students and physicians is regularly collected, and kept on file. This makes it possible to recognize and support the legally and educationally qualified professional man and to expose quacks, healers, "imposters and incompetents." In short, the Council stands as a guard to keep the medical field from being overrun and discredited by entrance of the unfit. Its resources have been used with telling effect in the past, and continue in use today to protect the interests of those who are now legally qualified to practice medicine.

BIOGRAPHICAL DEPARTMENT

This department is under the supervision of the Council on Medical Education and Hospitals. Since 1905 it has been collecting personal data regarding licensed physicians and medical graduates for a biographical index of physicians of the United States and Canada. These records are available to all Fellows of the Association. They enable members of the profession to keep tab on location, society affiliations, specialty, teaching connection and other personal data concerning colleagues. These data may be obtained either by writing to the Biographical Department or by consulting the AMERICAN MEDICAL DIRECTORY which is issued every two years and is a reliable, authentic register of over 95 per cent of the members of the profession.

HOSPITAL DEPARTMENT

This department keeps data on more than 7,500 hospitals and sanatoriums in the United States and Canada. It is at the service of each Fellow of the Association. It has facilities for telling him about institutions for unusual cases, for assisting in staff organization, for giving information regarding physicians' office buildings, group clinic buildings, combined offices and residences and hospital building plans; advice about the problems of cults in hospitals, data on group clinics, dispensaries, laboratories and general information regarding all hospitals whether general or special.

PHARMACY AND CHEMISTRY

Through the Council on Pharmacy and Chemistry, the Association offers protection to physicians in choosing proprietary remedies. Sixteen scientific men, each an authority in his special field, make up the Council. Newly introduced medicinal preparations are considered in the light of cold, scientific evidence. The findings are reported in The Journal A. M. A. and in the book "New and Nonofficial Remedies," issued annually. Here the physician can check up on claims made for medicinal preparations which he may be urged to use. In many cases, the Council finds that certain remedies marked under proprietary names and at exorbitant prices, are no more efficacious than the ordinary U. S. P. products. Many preparations are discovered to be irrational mixtures, many utterly inefficient for the purposes for which they were made. Fellows of the Association are privileged at any time to obtain information from the Secretary of the Council relative to medicinal preparations.

INVESTIGATION DEPARTMENT

This department is a clearing house of data on patent and proprietary medicines, all forms of quackery and fake cures. The practical value of this information is proved by the thousands of letters of inquiry that are received annually by the Investigation Department from

physicians in every state in the union and practically every foreign country of any size. Any physician desiring specific information on some preparation can feel free to write to the Investigation Department asking for details and facts. Each letter of this kind is given careful answer, and in the majority of cases, it is possible to send pamphlet or reprint of an article on the subject of his inquiry.

At times, the physician may wish to give a talk before his local Kiwanis or Rotary Club on some phase of the nostrum evil or quackery. The Investigation Department is always glad to send him data in the form of pamphlets and for a nominal fee will rent a set of lantern slides that may be used effectively in illustrating the talk. Forty large educational posters dealing with practically every phase of quackery and the nostrum evil are also available for health exhibits. These can be purchased for a nominal sum and in certain instances, the Investigation Department donates a set of posters to the cause.

HEALTH AND PUBLIC INSTRUCTION

The Bureau of Health and Public Instruction seeks to educate the public through the columns of Hygeia, a monthly magazine of individual and community health, by the dissemination through lay publications of carefully prepared articles, and through a series of instructive pamphlets written by recognized medical authorities. The Bureau also offers assistance in the compilation of material for addresses on health topics by supplying abstracts and illustrative material.

Health items from Hygeia are being broadcast from a number of radio stations and inserted in newspapers throughout the country.

Health material—posters, pamphlets, etc., are shown at health exhibits of lay associations. The Bureau cooperates, where possible, with other organizations such as the National Education Association in promoting health activities. The Bureau undertakes the study of special problems assigned to it, such as the periodic medical examination of the apparently healthy.

Each year, thousands of pamphlets on baby welfare, sex education, contagious diseases, cancer, school health problems and other subjects, are distributed.

LEGAL MEDICINE AND LEGISLATION

This Bureau keeps in touch with legislation and court decisions of interest to physicians, such as those relating to the prescribing and dispensing of liquor and narcotics, income and other taxes relating to the practice of medicine, quarantine laws, vaccination, medical malpractice, protection of scientific research, etc. Information and experience collected by the Bureau is available to all Fellows and members of the Association through their respective state medical societies.

A. M. A. LIBRARY

The A. M. A. Library, while not pretentious, has very good facilities for rendering service to the profession. More than 300 medical journals, domestic and foreign, are regularly received, abstracted and indexed. These abstracts are available through the columns of The Journal A. M. A. A complete index of all articles currently published is arranged both by subject and author and furnished in the Quarterly Cumulative Index to Current Medical Literature. Any Fellow of the Association is entitled to use the facilities of the library and to call upon the library for a list of references on any medical subject of interest. Any foreign medical journal on file in the library can be borrowed for a reasonable length of time without charge. A package service has recently been established through which members can secure, for temporary use, original articles on a variety of subjects.

PUBLISHING DEPARTMENT

By developing its own printing plant, the Association is able to furnish medical publications at a great saving. This department includes extensive type equipment, linotype machines, flatbed and rotary presses and necessary bindery machinery for producing medical journals, books, pamphlets and supplies on a large scale, and at a reasonable cost. For example, the weekly issue of The Journal A. M. A. in one year make a total of more than 4,000 pages of reading matter attractively illustrated and well printed on good quality paper. The cost is but $5.00, including Fellowship dues. Hygeia, the lay health journal, at $3.00 per year, is printed on the Association's presses and compares in typography, illustrations and general attractiveness with other high grade magazines. The printing department also makes possible several special journals—"Archives of Internal Medicine," $5.00 per year; "American Journal of Diseases of Children," $4.00 per year; "Archives of Neurology and Psychiatry," $8.00 per year; "Archives of Dermatology and Syphilology," $8.00 per year; "Archives of Surgery," $8.00 per year; "Archives of Otolaryngology," $6.00 per year, and "Archives of Pathology and Laboratory Medicine," $6.00 per year. Journals such as these necessarily have a limited appeal and would have to have a much higher subscription rate if printed by private concerns. This also applies to the Quarterly Cumulative Index to Current Medical Literature, which gives the user a reference to practically all worthwhile articles currently published in the world's medical journals, yet is furnished at a cost of $8.00 per year.

The American Medical Directory is another publication made possible by the facilities of the Association. This is issued every two years. It is a book of about 2,500 pages and gives minute personal data on 95 per cent of the physicians in the United States and Canada and about 7,500 hospitals. It is furnished at a cost of $5.00.

In addition to the regular periodicals issued by the Association, hundreds of thousands of circulars, reprints, leaflets, posters, etc., bearing on medical and health topics are printed and distributed annually.

COOPERATION WITH STATE AND COUNTY SOCIETIES

Through the office of its Secretary and through its Councils and Bureaus, the Association endeavors to keep in touch and to cooperate with state medical associations and county medical societies for the promotion of the welfare of the individual physician.

A. M. A. BULLETIN

The Bulletin goes each month, except July, August,

and September, to all Fellows of the Association. Its columns are given over to the discussion of subjects pertaining to medical economics, medical organization and matters of general professional interest.

INFORMATION SERVICE

The bureaus and departments of the Association reply to many thousands of letters each year, answering requests for information in which physicians are interested. Thus the various offices of the Association constitute a veritable service bureau for the benefit of its members.

AUTOMOBILE INSIGNIA

The distinctive automobile emblem of the American Medical Association is available to members only. The emblem originally used by the American Medical Association was limited in its sale to physicians, but it bore no distinctive marking and was found frequently in the hands of those not authorized to use it. The present emblem is protected in three ways: (1) By carrying a definite number, which is registered at the headquarters office of the American Medical Association; (2) by carrying the letters M.D., recognized everywhere as doctor of medicine, unmistakably the marking of a physician, and therefore definite proof of false pretense if carried on the car of any but a physician; (3) by copyright of the design, thereby making it possible for the American Medical Association to maintain complete control over the manufacture and distribution of the emblem.

The emblem can only be secured by addressing the Association. It is made in three types: The regular radiator style, price $1.50; combined with a temperature indicator—"The Signaphore," price $8.50, price with lock cap, $13.50, and the third style is the emblem with an outer ring on which is lettered the name of the local county society. This latter type emblem may only be secured in group orders of not less than fifty, price $2.00 each.

CATALOGUE

A catalogue and price list of the publications of the Association may be had for the asking.

VISITORS WELCOME

Members and Fellows are urged to visit the offices of the Association and to look over its plant and its work.

CONCLUSION

Thus, in many ways, the Association is functioning in behalf of the individual physician. To take a full share in continuing and expanding its activities is the privilege of each physician who is a member, in good standing, of his county and state medical organizations. The annual dues for Fellows of the Association are $5.00. This includes subscription to The Journal of the American Medical Association and to the A. M. A. Bulletin. The subscribers to The Journal now total over 85,000. The Association now has more than 92,000 members, of whom more than 60,000 are Fellows.

Membership List, State Medical Society of Wisconsin, 1926

As of December 1, 1926.

Ashland-Bayfield-Iron

Anderson, Charles E., Bessemer, Mich.
Andrus, A. P., Ashland.
Axley, A. A., Washburn.
Clarke, Kate, Cable.
Dodd, J. M., Ashland.
Fawcett, W. E., Bayfield.
Gilman, R. L., Philadelphia, Pa.
Gregory, J. H., Danville, Ill.
Grigsby, R. O., Ashland.
Hambley, T. J., Hurley.
Harris, C. F., Bayfield.
Hertzman, C. O., Ashland.
Hoover, M. S., Ashland.
Johnson, F. G., Iron River.
Kamm, A. X., Ashland.
Leahy, J. D., Park Falls.
Leekhart, C. W., Mellen.
Mertens, H. G., Bayfield.
Pingo, H. F., Montreal.
Scherl Sam, Bronx, N. Y.
Schlessman, B., Washburn.
Shaw A. O., Ashland.
Smiths, C. J., Ashland.
Tartar, J. W., Iron River.
Tucker, W. J., Ashland.
Urquhart, C. C., Hurley.
Wenzel, J. V., Ashland.
Young, M. L., Ashland.

Barron-P-W-S-B.

Adams, R. W., Chetek.
Ainsworth, H. H., Birchwood.
Arwson, R. G., Frederic.
Babcock, I. G., Cumberland.
Caldwell, H. C., St. Croix Falls.
Carberry, Elmer A., Centuria.
Charron, T. A., Rice Lake.
Coleman, H. M., Barron.
Cornbacker, H. E., Osceola.
Cornwall, W. B., Amery.
Dawson, D. L., Rice Lake.
Diamond, J. A., Frederic.
Galloway, A. D., Clayton.
Grinde, G. A., Cumberland.
Hall, H. H., Philadelphia, Pa.
Hawkins, T. R., Cameron.
Hering, E. R., Shell Lake.
Knapp, E. J., Rice Lake.
Knowles, W. L. M., Spooner.
Kulig, A. H., Turtle Lake.
Larsen, G. A., Hayward.
Lemmer, G. N., Spooner.
Lund, S. O., Cumberland.
Medley, S. R., Siren.
Nelson, A. N., Clear Lake.
Noyes, G. B., Stone Lake.
Post, C. C., Barron.
Prill, J. H., Chetek.
Riegel, J. A., St Croix Falls.
Ruetkin, K. A., Barron.
Sattre, O. M., Rice Lake.
Simenstad, L. O., Osceola.
Swanson, A. J., Frederic.
Tanner, G. F., Turtle Lake.
Wallis, J. H., Rice Lake.
White, A. S., Rice Lake.
Whitney, D. C., Rice Lake.
Wiger, H. C., Barron.

Brown-Kewaunee

Bertran, W. H., Green Bay.
Bellin, Julius J., Green Bay.
Buchanan R. C., Green Bay.
Burdon, R. M., Green Bay.
Carter, R. M., Green Bay.
Charbonneau, A., Green Bay.
Chloupek, C. J., Green Bay.
Clifford, P. M., Green Bay.
Colignon, James G., Green Bay.
Comee William, Glenwood Springs, Colo.
Cowles, R. L., Green Bay.
Crikelair, F. L., Green Bay.
De Cock, J., Green Bay
Dishmaker, D., Kewaunee.
Fairfield W. E., Green Bay.
Fenell Y. J., Casco.
Foshlon, H. V., Algoma.
Fuller, M. H., Green Bay.
Gosin, F. J., Green Bay.
Hall, Earle H., Green Bay.
Harris, F. M., Green Bay.
Hendrickson, H., Green Bay.
Kelly, W. W., Green Bay.
Kerscher, E. J., Casco.
Kersten, N. M., De Pere.
Kispert, R. W., Green Bay.
Knox, E. S., Green Bay.
Leaper, W. E., Green Bay.
Levitas, I. E., Green Bay.
Looze, Jos. A., New Franken.
McCarey, A. J., Green Bay.
McLaughlin, W. J., Wrightstown.
McNevins, E. S., Green Bay.
Minahan, J. R., Green Bay.
Minahan, P. R., Green Bay.
Minahan, R. E., Green Bay.
Moreaux, Felix, Luxemburg.
Mueller, W. E., Green Bay.
Nadeau, E. G., Green Bay.
Oliver, T. J., Green Bay.
Olmsted, A. O., Green Bay.
Quigley, L. D., Green Bay.
Rhode, H. P., Green Bay.
Robb, J. J., Green Bay.
Rose, Felix, Green Bay.
Saunders, O. W., Green Bay.
Schmidt, E. S., Green Bay.
Senn, C., Green Bay.
Stiennon, O. A., Green Bay.
Titel E. A., Greenleaf.
Witepalek, W. W., Algoma.
Wochos, F. J., Kewaunee.
Wochos, W. M., Kewaunee.
Wolter, H. A., Green Bay.

Calumet

Engel, A. C., New Holstein.
Fechter, F. J., Elkhart Lake.
Goggins, J., Chilton.
Knauf, F. P., Kiel.
Knauf, N. J., Chilton.
Krohn H. C., New Holstein.
Lawler, C. F., Hilbert.

McComb, I. N., Brillion.
Martens, W. A., Milwaukee.
Minahan, John, Chilton.
Rathert, E. T., Chilton.
Schmidt, J. A., Brillion.
Weber, E. P., Sherwood.

Chippewa

Beler, A. L., Chippewa Falls.
Cooper, C. A., Colfax.
Cunningham, J. N., Stanley.
Cunningham, R. D., Cadott.
Ellenson, E. P., Chippewa Falls.
Erdman, C. H., Stanley.
Field, Merton, Chippewa Falls.
Foster, J. H. A., Cornell.
Hatleberg, C. B., Chippewa Falls.
Henske, W. C., Chippewa Falls.
Hurd, H. H., Chippewa Falls.
Kelley, J. A., Chippewa Falls.
Larsen, L. A., Colfax.
McCarty, E. O., Chippewa Falls.
McCormick, H., New Auburn.
McHugh, F. T., Chippewa Falls.
McRae, J. D., Chippewa Falls.
Schwartz, Rollin, Chippewa Falls.
Somers, A. J., Chippewa Falls.
Trankle, H. M., Bloomer.
Williams, S. E., Chippewa Falls.

Clark

Baker, K. W., Owen.
Boeckmann, F. A., Greenwood.
Bradbury, E. L., Neillsville.
Christofferson, H. H., Colby.
Dike, B. H., Owen.
Foley, F. P., Dorchester.
Frank, J. H., Neillsville.
Housley, H. W., Granton.
Jackey, F. D., Thorp.
Johnston, G. B., Abbottsford.
McGonigal, M., Loyal.
Neis, F. P., Thorp.
Rath, R. R., Granton.
Schemmer, A. L., Colby.
Schwarz, S. G., Marshfield.
Treadwell, C. L., Withee.

Columbia

Batty, A. J., Portage.
Bellack, B. F., Columbus.
Boots, F. W., Briggsville.
Boynton, R. D., Kilbourn.
Caldwell, H. M., Columbus.
Chandler, Joseph, Pardeeville.
de Neveu, A. V., Milwaukee.
Gillette, H. E., Pardeeville.
Henney, C. W., Portage.
Hunt, F. O., Fall River.
Kellogg, J. R., Portage.
Mac Gregor, James W., Portage.
Maas, W. C., Rio.
Meagher, B. C., Portage.
Mudroch, J. A., Columbus.
Pease, W. A., Jr., Rio.
Poser, E. M., Columbus.
Roberts, J. A., Portage.
Schloemilch, A., Portage.
Schmeling, A. F., Columbus.
Snyder, Karl, Portage.
Taylor, W. A., Portage.
Tierney, E. F., Barahoo.
Wedge, A. H., Cambria.
Williams, W. E., Cambria.

Crawford

Antoine, F. J., Prairie du Chien.
Armstrong, C. A., Prairie du Chien.
Coon, W., Gays Mills.
Farrell, T. E., Seneca.
Kane, J. J., Prairie du Chien.
McDowell, A. J., Soldiers Grove.
Pinkerton, W. T., Prairie du Chien.
Satter, O. E., Prairie du Chien.

Dane

Allen, C. F., Middleton.
Amundson, K. K., Cambridge.
Aylward, R. C., Madison.
Bardeen, C. R., Madison.
Barlow, Roy A., Madison.
Bertrand, J. H., De Forest.
Bilstad, G. E., Cambridge.
Blankinship, R. C., Madison.
Bleckwenn, W. J., Madison.
Boner, A. J., Mendota.
Bower, R. L., Madison.
Boyce, S. R., Madison.
Briggs, S. J., Madison.
Brown, D. A., Madison.
Brown, E. J., Madison.
Buckner, H. M., Mt. Horeb.
Buerki, R. C., Madison.
Bunting, C. H., Madison.
Burns, Robert, Madison.
Carter, H. M., Madison.
Chorlog, J. K., Madison.
Collins, D. B., Madison.
Colucey, M. J. J., Madison.
Cooksey, R. T., Madison.
Davis, F. A., Madison.
Dean, James P., Madison.
Dean, Joseph, Madison.
Domine, Anthony, Mendota.
Drake, F. I., Milwaukee.
Dwight, C. G., Madison.
Elsom, J. C., Madison.
Esser, O. J., Madison.
Evans, J. S., Madison.
Falk, V. S., Stoughton.
Fauerbach, Louis, Madison.
Focke, Wm. J., Paynette.
Fox, Philip, Sr., Madison.
Fox, Philip R., Jr., Madison.
Froggatt, W. E. L., Cross Plains.
Ganser, W. J., Madison.
Gonce, J. E., Madison.
Greeley, H. P., Madison.
Green, M. K., Mendota.
Griswold, F. L., Mazomanie.
Groves, R. J., Lodi.
Guilford, H. M., Madison.
Gundersen, C. A. S., Madison.
Harper, C. A., Madison.
Harper, Carl S., Madison.
Head, L. R., Madison.
Henika, G. W., Madison.
Hodges, Fred J., Madison.
Horn, A. S., Stoughton.
Hough, A. G., Madison.
Hudson, Robert J., Prairie du Sac.
Hunter, H. R., Madison.
Hurlbut, J. A., Madison.
Ingersoll, R. S., Madison.
Irwin, G. H., Lodi.
Ishmael, O. E., Madison.
Iverson, M., Stoughton.
Jackson, Arnold, Madison.
Jackson, J. A., Jr., Madison.
Jackson, R. H., Madison.
Johnson, H. C., Madison.
Kay, H. M., Madison.
Keenan, H., Stoughton.
Kenney, R. L., Mendota.
Lee, J. H., Madison.
Lindsay, W. T., Madison.
Littig, L. V., Madison.
Loevenhart, A. S., Madison.
Lorenz, W. F., Madison.
MacLachlan, W. G., McFarland.
McIntosh, R. L., Madison.
Marsh, H. E., Madison.
Meade, F. S., Madison.
Meanwell, W. W., Madison.
Medlar, E. M., Madison.
Middleton, W. S., Madison.
Montgomery, R. C., Madison.
Morris, Sarah, Madison.
Mowry, W. A., Madison.
Myers, I. A., Madison.
Neff, E. E., Madison.
Nelson, N., Madison.
Nelson, O. O., Madison.
Nesbit, W. M., Madison.
Newmann, Robert, Chicago, Ill.
Newton, J. E., Hudson.
Noer, Julius, Berkeley, Calif.
O'Brien, J. M., Oregon.
Olson, A. L., Stoughton.
Omsted, N., Stoughton.
Perlman, Henry B., Belleville.
Peterson, L. W., Sun Prairie.
Plumlee, R. S., Brooklyn.
Puestow, K. L., Madison.
Purcell, H. E., Madison.
Quisling, Sverre, Madison.
Reagles, Robert, Arlington.
Reese, Hans H., Madison.
Robbins, G. H., Madison.
Rowley, A. G., Middleton.
Sauthoff, A., Mendota.
Sauthoff, Mary, Mendota.
Schmidt, Erwin, Madison.
Schneiders, E., Madison.
Schubert, C. K., Madison.
Sevringhaus, E. L., Madison.
Sharpe, H. A., Verona
Shaw, B. W., Wannakee.
Sheldon, W. H., Madison.
Sisk, I. R., Madison.
Sisk, J. N., Madison.
Smith, K. W., Madison.
Sommers, J. C., Madison.
Sprague, L. V., Madison.
Stebbins, W. W., Madison.
Stovall, W. D., Madison.
Stuessy, Sylvia G., Madison.
Sullivan, A. G., Madison.
Sullivan, E. S., Madison.
Sylvester, H., Madison.
Taylor, F. B., Madison.
Tenney, H. K., Jr., Madison.
Tindall, F. G., Belleville.
Tormey, A. R., Madison.
Tormey, T. W., Madison.
Townsend, E. J., Madison.
Van Valzah, Robert, Madison.
Vingom, C. O., Madison.
Wadey, B. J., Belleville.
Welke, E. G., Madison.
Weston, Frank L., Madison.

Dodge

Bachhuber, A. E., Mayville.
Bachhuber, L. M., Mayville.
Bowes, J. J., Peoria, Ill.
Brown, J. F., St. Louis, Mo.
Corr, W. P., Juneau.
Clark, F. T., Waupun.
Deerhake, W. A., Waupun.
Eickelberg, F. A., Reeseville.
Elliott, E. S., Fox Lake.
Goetsch, O. F., Hustisford.
Hammond, A. W., Beaver Dam.
Harkins, J. P., Milwaukee.
Hebenstreit, A. J., Juneau.
Holtz, H. M., Beaver Dam.
Hoyer, A. A., Beaver Dam.
Hoyer, George H., Beaver Dam.
Karsten, John H., Horicon.
Kennedy, Frank H., Iron Ridge.
Krahn, A. J., Beaver Dam.
Langenfeld, P. F., Theresa.
Orban, Louis, Waupun.
Panetti, P. A., Hustisford.
Riopelle, W. G., Beaver Dam.
Roberts, R. R., Beaver Dam.
Rosenheimer, A. M., Fox Lake.
Sanders, J., Rice Lake.
Schoen, R. E., Beaver Dam.
Sears, H. B., Oshkosh.
Stuesser, C. N., Ashippun.
Ver Meulen, J., Waupun.
Webb, E. P., Beaver Dam.

Door

Egland, G. R., Sturgeon Bay.
Hirschboeck, J. G., Forestville.
Huff, F. C., Sturgeon Bay.
Proctor, T. C., Sturgeon Bay.

Douglas

Baird, John, Superior.
Beebe, L. W., Superior.
Broghammer, F. J., Superior.
Carpenter, E. E., Superior.
Charbonneau, E., Superior.
Conklin, G. H., Superior.
Ekblad, V. E., Superior.
Giesen, C. W., Superior.
Goodfellow, J. R., Superior.
Ground, W. E., Superior.
Hathaway, G. J., Superior.
Hilliard, H. G., Hayward.
Hovde, A. G., Superior.
Knox, C. S., Superior.
Kyllo, A. L., Superior.
Kyllo, J. C., Superior.
Lohmiller, R. K., Superior.
Looze, A. J., Superior.
Mason, C. H., Superior.
McGill, P. J., Superior.
Meyers, J. M., Superior.
Myers, E., Superior.
O'Leary, T. J., Superior.
Orchard, H. J., Superior.
Rollefson, C. J., Superior.
Rydell, C. B., Superior.
Sarazin, F. C., Superior.
Sarvela, H. L., Superior.
Saunders, George, Superior.
Schnell, W. H., Superior.
Searle, D. R., Superior.
Shastid, T. H., Superior.
Sincock, H. A., Superior.
Smith, R. C., Superior.
Wilcox, A. G., Solon Springs.
Zwickey, W. H., Superior.

Eau Claire & Associated

Alley, H. C., Eleva.
Amunson, P. B., Mondovi.
Anderson, F. G., Eau Claire.

Ashum, D. W., Eau Claire.
Austin, W. T., Fall Creek.
Baird, J. C., Eau Claire.
Beebe, George, Eau Claire.
Belitz, Alfred, Pepin.
Blosmo, Oscar J., Menomonie.
Brookie, R. W., Pepin.
Butler, F. E., Menomonie.
Christensen, O. A., Hawkins.
Clark, I. F., Wauzeka.
Cook, F. S., Eau Claire.
Curtis, G. E., Eau Claire.
Derge, H. F., Eau Claire.
Dreyer, R. A., Wheeler.
Falstad, Clarence H., Eau Claire.
Farr, J. F., Eau Claire.
Flynn. L. H., Eau Claire.
Frisbie, R. L., Fairchild.
Fulton, H. A., Eau Claire.
Goddard, J. B., Eau Claire.
Grannis, I. V., Menomonie.
Gudex, V. A., Eau Claire.
Guyton, E. A., Eau Claire.
Halgren, J. A., Menomonie.
Harper, Glenn C., Durand.
Hayes, E. P., Eau Claire.
Hayes, E. S., Eau Claire.
Heising, A. F., Menomonie.
Howison, N. L., Menomonie.
Hoyme, G., Eau Claire.
Jacobs, E. C., Durand.
Johnson, B. F., Mondovi.
Johnson, Fred, Eau Claire.
Kinsman, F. C., Eau Claire.
Knutson, Oscar, Osseo.
La Breck, F. A., Eau Claire.
Leasum, R. V., Osseo.
Linhardt, Oscar V., Baltimore, Md.,
Lumsden, William, Menomonie.
Mason, E. L., Eau Claire.
Midelfart, H. C., Eau Claire.
Mitchell, R. E., Eau Claire.
Olson, E. A., Osseo.
Payne, A. L., Eau Claire.
Prill, H. F., Augusta.
Schulberg, P. A., Durand.
Scott, J. J., Durand.
Seemann, W. O., Eau Claire.
Stang, H. M., Eau Claire.
Steves, B. J., Menomonie.
Stoland, I., Eau Claire.
Tupper, E. E., Eau Claire.
Van Slyke, L. H., Knapp.
Werner, Nels, Eau Claire.
Werner, R. F., Eau Claire.
Williams, A. E., Boyceville.
Ziegler, J. E. B., Eau Claire.

Fond du Lac

Alexander, W. S., Fond du Lac.
Baasen, J. M., Fond du Lac.
Borsack, K. K., Fond du Lac.
Boyd, G. T., Fond du Lac.
Calvy, P. J., Fond du Lac.
Dana, A. C., Fond du Lac.
Devine, H., Fond du Lac.
Folsom, W. H., Fond du Lac.
Gavin, S. E., Fond du Lac.
Hardgrove, J. H., Eden.
Havens, F. Z., Waupun.
Helz, J. W., Fond du Lac.
Hoffmann, Leo, Campbellsport.
Jackson, F. A., Eldorado.
Layton, O. M., Fond du Lac.
Leonard, C. W., Fond du Lac.
Longley, J. R., Fond du Lac.
McCabe, P. G., Fond du Lac.
Marshall, F. P., Fond du Lac.
Meiklejohn, D. V., Fond du Lac.
Prees, R. L., No. Fond du Lac.
Pullen, A. J., No. Fond du Lac.
Raymond, R. G., Brownsville.
Rehorst, J. J., Fond du Lac.
Scheld, M. M., Rosendale.
Sharpe, H. R., Fond du Lac.
Sharpe, J. J., Fond du Lac,
Shaykett, F. E., Brandon.
Shepard, E. L., Brandon.
Shuart, C. D., Waupun.
Simon, L. J., Fond du Lac.
Smith, E. V., Fond du Lac.
Taylor, L. L., Waupun.
Twohig, D. J., Fond du Lac.
Twohig, H. E., Fond du Lac.
Twohig, J. E., Fond du Lac.
Waldschmidt, J., Fond du Lac.
Waldschmidt, W. J., Fond du Lac.
Walters, D. N., Fond du Lac.
Werner, C. F., St. Cloud.
Werner, H. C., Fond du Lac.
Wiley, F. S., Fond du Lac.

Grant

Andrew, C. H., Platteville.
Bailey, M. A., Fennimore.
Baldwin, F. H., Bloomington.
Betz, J. C., Boscobel.
Blackburn, F. E., Cassville.
Brady, D. L., Potosi.
Buck, G. C., Platteville.
Cunningham, Wilson, Platteville.
Donnell, J. E., Cuba City.
Doolittle, J. C., Lancaster.
Doolittle, S. W., Lancaster.
Dunn, E. A. A., Platteville.
Fillbach, H. E., Hazel Green.
Fowler, J. H., Lancaster.
Glasier, M. B., Bloomington.
Godfrey, J., Lancaster.
Godfrey, R. Lancaster.
Hayman, C. S., Boscobel.
Hayman, L. H., Pasadena, Calif.
Howell, E. C., Fennimore.
James, A. W., Muscoda.
Kraut, E., Lancaster.
Marsden, T. H., Fennimore.
McLaughlin, H. J., Bloomington.
Pickering, C. R., Muscoda.
Pretts, W. W., Platteville.
Randall, M. W., Blue River.
Ruka, E. A., Muscoda.
Schuldt, C. M., Platteville.
Spiegelberg, E. H., Boscobel.
Treglown, L. H., Livingston.
Tuffley, F. S., Boscobel.

Green

Bear, W. G., Monroe.
Blumer, Edward, Monticello.
Clark, R. B., Monroe.
Fleek, J. L., Brodhead.
Francois, S. J., New Glarus.
Gifford, H. B., Juda.
Gnagi, W. B., Monroe.
Helgeson, E. J., Evansville.
Hodges, F. L., Monroe.
Juster, E. M., Madison.
McQuillin, E. D., New Glarus.
Mauermann, J. F., Monroe.
Monroe, W. B., Monroe.
Moore, L. A., Monroe.
Rouse, H. A., Browntown.
Taylor, A. R., Brodhead.
Wood, C. A., Albany.

Green Lake-W-A

Baldwin, G. E., Green Lake.
Barnes, E. C., Ripon.
Beck, A. A., Wautoma.
Buckland, Ralph, Fairwater.
Buckley, W. E., Redgranite.
Clawson, H. E., Redgranite.
Cox, J. A., Milwaukee.
Federman, E. H., Montello.
Foat, J. S., Ripon.
Hudek, D. F., Princeton.
Johnson, J. M., Ripon.
MacGregor, S. A., Westfield.
O'Neal, O., Ripon.
Riordan, J. F., Berlin.
Schallern, Bruno, Ripon.
Schulz, H. A., Ripon.
Scott, B. E., Berlin.
Senn, C. U., Ripon.
Wiesender, A. J., Berlin.

Iowa

Brown, A. D., Mineral Point.
Corlett, W. S., Blanchardville.
Graves, L. S., Mineral Point.
Hagerup, T. A., Dodgeville.
Hamilton, D. B., Dodgeville.
Hughes, J. R., Waukesha.
Ludden, H. D., Mineral Point.
McDonald, H. F., Hollandale.
Morton, H. H., Cobb.
Pearce, W. J., Dodgeville.
Reese, William, Dodgeville.
Ridley, S. R., Mineral Point.
Trentzsch, M. W., Highland.

Jefferson

Abelman, T. C. H., Watertown.
Allen, S. C., Waterloo.
Becker, W. C., Watertown.
Bennett, L. J., Ft. Atkinson.
Bowen, E. W., Watertown.
Bowen, H. P., Watertown.
Brewer, J. C., Jefferson.
Busse, A. A., Jefferson.
Carmichael, C. S., Helenville.
Caswell, H. O., Ft. Atkinson.
Cook, E. H., Watertown.
Dennis, J. F., Waterloo.
Dierker, Otto F., Watertown.
Eck, G. E., Lake Mills.
Engsberg, W. A., Lake Mills.
Fiebiger, G. J., Waterloo.
Franzel, J. E., Ft. Atkinson.
Haney, F. C., Watertown.
Johnston, W. M., Johnson Creek.
Keithley, J. A., Palmyra.
Kosanke, F. E., Watertown.
Leicht, Phillip, Lake Mills.
Majerus, P. J., Ft. Atkinson.
Morris, R. C., Ft. Atkinson.
Nickels, A. C., Watertown.
Nothohm, D. R., White Lake.
Nowack, L. H., Watertown.
O'Connell, J., Watertown.
Peterson, M. G., Lake Mills.
Spencer, Charles F., Denver, Colo.
Venning, J. R., Ft. Atkinson.
Waite, W. S., Watertown.
Young, William, Ft. Atkinson.

Juneau

Golden, C. H., Wonewoc.
Gregory, A. T., Mauston.
Hansberry, J. S., Wonewoc.
Lawler, T. S., Milwaukee.
O'Brien, W. T., Mauston.
Starnes, Brand, New Lisbon.
Vogel, C. A., Elroy.
Vogel, C. C., Elroy.

Kenosha

Adams, G. F., Kenosha.
Ashley, T. W., Kenosha.
Becker, B. A., Silver Lake.
Binnie, Helen A., Kenosha.
Bowing, Irwin, Kenosha.
Caughey, C. R., Kenosha.
Christofferson, A. L., Kenosha.
Cleary, J. H., Kenosha.
Curtiss, F. D., Kenosha.
Dobbins, Thomas, Kenosha.
Fletcher, William, Salem.
Gephart, C. H., Kenosha.
Graves, J. P., Kenosha.
Hanley, W. J., Kenosha.
Hastings, J. F., Kenosha.
Herrick, E. L., Kenosha.
Hill, B. Spalding, Kenosha.
Jorgensen, P. P. M., Kenosha.
Keskey, George, Kenosha.
Lane, J. W., Kenosha.
Lansdowne, F. B., Kenosha.
McCarthy, G. W., Kenosha.
McClusky, O. W., Kenosha.
McCracken, J. O., Kenosha.
Murphy, S. W., Kenosha.
Nixon, Byron, Kenosha.
Palt, Joseph, Kenosha.
Perry, Gentz, Kenosha.
Pirsch, Margaret, Kenosha.
Pugh, G. A., Kenosha.
Randall, A. J., Kenosha.
Richards, C. G., Kenosha.
Ripley, H. M., Kenosha.
Robinson, H. A., Kenosha.
Rose, H. L., Kenosha.
Ross, G. L., Kenosha.
Schwartz, B. J., Kenosha.
Schwartz, G. J., Kenosha.
Seiler, Elizabeth, Kenosha.
Stewart, W. C., Kenosha.
Swarthout, E. F., Kenosha.
Toner, T. J., Kenosha.
Van Westrienen, A., Kenosha.
Windesheim, G., Kenosha.

La Crosse

Anderson, N. P., La Crosse.
Bangsberg, Sarah, La Crosse.
Bannen, W. E., La Crosse.
Bigler, J. A., La Crosse.
Bradfield, J. A. L., La Crosse.
Callahan, J. L., La Crosse.
Carlson, E. S., La Crosse.
Douglas, F. A., La Crosse.
Eagan, R. L., La Crosse.
Egan, G. J., La Crosse.
Eidam, L. W., La Crosse.
Evans, Edward, La Crosse.
Evans, Edward T., New York City.
Evans, James A., La Crosse.
Flynn, R. E., La Crosse.
Gallagher, E. E., La Crosse.
Gatterdam, Paul C., La Crosse.
Gehring, C. A., La Crosse.
Gorholt, W. R., La Crosse.
Gray, R. H., La Crosse.
Gundersen, A., La Crosse.

Gundersen, G., La Crosse.
Gundersen, S. B., La Crosse.
Hanson, L. E., Holmen.
Henke, W. A., La Crosse.
Heraty, J. E., La Crosse.
Herbert, R. H., La Crosse.
Houck, Mary, La Crosse.
Jamieson, R. D., Racine.
Jeffers, Dean, West Salem.
Johnson, J. E., New York City.
Jones, W. J., La Crosse.
Lueck, G. W., La Crosse.
MacArthur, D. S., La Crosse.
McCarty, M. A., La Crosse.
McLoone, J. E., La Crosse.
Mast, B. W., La Crosse.
Maurer, A. A., Chicago, Ill.
Reay, G. R., La Crosse.
Rosholt, J. A., La Crosse.
Rowles, J. A., La Crosse.
Simones, V. L., La Crosse.
Sivertson, M., La Crosse.
Skemp, A., La Crosse.
Smedal, Ellef, La Crosse.
Smith, D. S., La Crosse.
Solberg, A. A., Coon Valley.
Sulter, F. C., La Crosse
Swarthout Edyth C., La Crosse.
Swarthout, E. C., La Crosse.
Townsend, E. H., Jr., La Crosse.
Wakefield, G. F., West Salem.
Wolf, H. E., La Crosse.

Lafayette

Bair, F. M., Cuba City.
Bent, X. P., Benton.
Ennis, S. A. J., Shullsburg.
Gratiot, Mary, Shullsburg.
Hoesley, H. F., Shullsburg.
Hubenthal, J. C., Belmont.
Lehnkering, C. F., Darlington.
Leitzell, P. W., Benton.
Moe, H. B., Blanchardville.
Orton, Susanne, Darlington.
Peck, W. W., Darlington.
Prentiss Pearce, South Wayne.
Quinn, R. B., Darlington.
Scott, H. E., Argyle.
Shockley, H. O., Darlington.
Williams, W. B., Argyle.

Langlade

Bloor, E. J., Antigo.
Dailey, P. J., Elcho.
Donohue, E. J., Antigo.
Donohue, M. J., Antigo.
Dorszeski, E. F., Antigo.
Flatley, M. A., Antigo.
Lambert, J. W., Antigo.
Moore, G. E., Antigo.
Murphy, E. R., Antigo.
Steffen, L. A., Antigo.
Wright, J. C., Antigo.

Lincoln

Austria, W. F., Merrill.
Baker, George, Tomahawk.
Bayer, W. H., Merrill.
Cutter, J. D., Altadena, Calif.
Friend, L. J., Merrill.
Hinckley, H. G., Merrill.
Kelley, F. L., Merrill.
McCormick, W. C., Tomahawk.
Morris, E. K., Merrill.
Morris, K., Merrill.
Ravn, Bjarne. Merrill.
Ravn, E. O., Merrill.
Ravn, M., Merrill.
Reinhart, D. B., Merrill.
Winneman, F. A., Merrill.

Manitowoc

Aldridge, H. W., Manitowoc.
Andrews, M. P., Manitowoc.
Barnstein, Charles, Timothy.
Barnstein, J. E., Manitowoc.
Cary, E. C., Reedsville.
Christensen, E., Two Rivers.
Donohue, William, Manitowoc.
Farrell, A. M., Two Rivers.
Festerling, E. G., Reedsville.
Gleason, C. M., Manitowoc.
Gregory, F., Valders.
Hammond, F. W., Manitowoc.
Hammond, Reginald, Manitowoc.
Karnopp, G. L., Wautoma.
Kellner, V. V., Maribel.
Kelley, J. M., Cato.
Kemper, W. G., Manitowoc.
Luhman, F. S., Manitowoc.
MacCollum, C. L. R., Manitowoc.
Meany, J. E., Manitowoc.
Morlarty, Leo J., Two Rivers.
Rauch, W. A., Valders.
Reinert, E. N., Cleveland.
Schmitz, W. C., Manitowoc.
Shaw, J. L., Manitowoc.
Shimek, A. J., Manitowoc.
Skwor, C. J., Mishicot.
Staehle, Max, Manitowoc.
Steckbauer, Jos. W., Manitowoc.
Stueck, A. F., Manitowoc.
Tietgen, A., Manitowoc.
Turgasen, F. E. Manitowoc.
Zlatnik, A., Two Rivers.

Marathon

Addleman, I. M., Wausau.
Barber, J. L., Marathon.
Boslough, A. W., Wausau.
Bryant, J. R., Wausau.
Butler, E. F., Mosinee.
Callahan, H. T., Spencer.
Christensen, H. H., Wausau.
Doyle, J. N., Wausau.
Eastman, V. E., Wausau.
Fisher, R. F., Wausau.
Flemming, E. E., Wausau.
Frawley, R. M., Wausau.
Freeman, Joseph, Wausau.
Frenzel, W. C., Wausau.
Frey, F. H., Wausau.
Frick, Lewis, Athens.
Green, W. A., Wausau.
Jackson, J. A., Mosinee.
Jones, D. T., Wausau.
Jones, M. L., Wausau.
Jones, R. W., Wausau.
Ladwig, W. A., Wausau.
Macaulay, E. M., Wausau.
Murphy, G. F., Stratford.
Nichols, F. C., Wausau.
Pearson, L. M., Wausau.
Phelps, E. J., Elderon.
Quade, E. B., Wausau.
Reist, P. Z., Wausau.
Rosenberry, A. B., Wausau.
Schlegel, H. T., Wausau.
Smith, Joseph F., Wausau.
Smith, S. M. B., Wausau.
Thielke, G. A., Wausau.
Wahl, H. S., Wausau.
Willard, L. M., Wausau.
Zilisch, W. E., Wausau.

Marinette-Florence

Armstrong, G., Pound.
Axtell, L. E., Marinette.
Berglund, S. A., Marinette.
Bird, M. D., Marinette.
Boren, C. H., Marinette.
Boren, J. W., Marinette.
De Salvo, Francis, Niagara.
Desbois, P., Marinette.
Dohearty, W. H., Peshtigo.
Duer, G. R., Marinette.
Ehmer, J. W., Crivitz.
Erdlitz, F. J., Peshtigo.
Gomber, Jacob, Goodman.
Graner, L. H., Coleman.
Horswell, U. M., Wausaukee.
Lid, T. A., Marinette.
May, J. V., Marinette.
Nadeau, A. T., Marinette.
Noer, P. J., Wabeno.
Paul, Olin, Kaukauna.
Redelings, T. J., Marinette.
Schroeder, H. F., Marinette.

Milwaukee County

Ackerman, W., Milwaukee.
Adamkiewicz, J. J., Milwaukee.
Allen, Laurie L., Wauwatosa.
Altenhofen, A. R., Milwaukee.
Altman, Maurice. Milwaukee.
Armbruster, B. F., Milwaukee.
Armitage, J. E., Kohler.
Arnold, F. W., Milwaukee.
Aylward, T. J., Milwaukee.
Bach, E. C., Milwaukee.
Bach, J. A., Milwaukee.
Bach, Robert J., Milwaukee.
Baer, A. N., Milwaukee.
Baer, C. A., Milwaukee.
Baranowski, S. A., Milwaukee.
Bardenwerper, H. E., Milwaukee.
Barnes, J. S., Milwaukee.
Barta, E. F., Milwaukee.
Barth, G. P., Milwaukee.
Bauer, F., Wauwatosa.
Baugh, C. W., Milwaukee.
Baum, E. L., Milwaukee.
Baumgart, C. H., Milwaukee.
Baur, F. J., Milwaukee.
Becker, C. J., Milwaukee.
Beebe, C. S., Milwaukee.
Beffel, J. M., Milwaukee.
Bentzein, E. W., Milwaukee.
Bernhard, A., Milwaukee.
Bernhard, L. A., Milwaukee.
Beutler, W. F., Wauwatosa.
Bickler, E. P., No. Milwaukee.
Biller, S. E., Milwaukee.
Birk, Benjamin J., Milwaukee.
Black, Nelson M., Milwaukee.
Blair, J. F., Milwaukee.
Blumenthal, R. W., Milwaukee.
Bodden, A. M., Milwaukee.
Boerner, R. W., Milwaukee.
Boorse, L., Milwaukee.
Bourne, N. Warren, Milwaukee.
Brah, A. J., Milwaukee.
Braun, Robert F., Wausau.
Brey, P. F., Milwaukee.
Brook, J. J., Milwaukee.
Brooks, L. M., Milwaukee.
Brown, G. V. I., Milwaukee.
Brown, Horace M., Milwaukee.
Brown, R. C., Milwaukee.
Brown, S. V. I., Milwaukee.
Bruins, D., Milwaukee.
Brunkhorst, R. O., Milwaukee.
Brzezinski, E. A., Milwaukee.
Burbach, T. H., Milwaukee.
Burton, J. J., Milwaukee.
Bussewitz, M. A., Milwaukee.
Byrd, T. L., Baltimore, Md.
Byrnes, M. B., Milwaukee.
Caffrey, A. J., Milwaukee.
Cahana, Stephen, Milwaukee.
Cairns, J. M., Milwaukee.
Callan, P. L., Milwaukee.
Cannon, H. J., Milwaukee.
Cargill, N. W., Milwaukee.
Carhart, G. A., Milwaukee.
Carroll, J. H., Milwaukee.
Carson, W. J., Milwaukee.
Cavanaugh, T. E., Milwaukee.
Caveney, Jas., Milwaukee.
Chapman, F. M., Milwaukee.
Chapman, Vernon A., Milwaukee.
Churchill, B. P., Milwaukee.
Coffey, C. J., Milwaukee.
Cohn, A. H., Milwaukee.
Conroy, J. M., Milwaukee.
Cook, E. F., Milwaukee.
Copeland, Ernst, Milwaukee.
Corcoran, C. J., Milwaukee.
Couch, E. E., West Allis.
Couch, T. T., West Allis.
Cox, L. M., Milwaukee.
Craite, E. J., Milwaukee.
Cron, Roland S., Milwaukee.
Currer, P. M., Milwaukee.
Curtin, A. L., Milwaukee.
Cushing-Lippitt, E., Milwaukee.
Cutler, J. S., Wauwatosa.
Dallwig, E. L., Milwaukee.
Dallwig, H. C., Milwaukee.
Dalton, R. J., Milwaukee.
Dana, W. G., Milwaukee.
Darling, Earl, Milwaukee.
Darling, F. E., Milwaukee.
Darling, W. G., Milwaukee.
Darling, W. S., Milwaukee.
Davelaar, G. W., Milwaukee.
Davis, Carl Henry, Milwaukee.
Dearholt, H. E., Milwaukee.
Decker, H. G., Milwaukee.
Dickinson, G. H., Milwaukee.
Dieterle, J. O., Milwaukee.
Differt, Chas. C., Milwaukee.
Doern, W. G., Milwaukee.
Doerr, August, Milwaukee.
Drexel, A., Milwaukee.
Dries, Joseph, Milwaukee.
Dundon, J. R., Milwaukee.
Durner, U. J., Milwaukee.
Echols, Chester M., Milwaukee.
Egan, W. J., Milwaukee.
Eisenberg, J. J., Milwaukee.
Eisenberg, P. J., Milwaukee.
Elmergreen, Ralph, Milwaukee.
Epperson, P. S., Milwaukee.
Ernst, G. R., Milwaukee.
Evans, C. A., Milwaukee.
Evans, E. P., Milwaukee.
Faber, C. A., Milwaukee.
Farrell, F. R., Milwaukee.
Federspiel, M. M., Milwaukee.
Fellman, G. H., Milwaukee.
Fetherston, J. P., Milwaukee.
Fidler, Chas. A., Milwaukee.
Fitzgerald, G. F. A., Milwaukee.
Fitzgerald, R. E., Milwaukee.

Fitzgibbon, W., Milwaukee.
Fitzpatrick, M. L., Milwaukee.
Fleischer, R., Milwaukee.
Fleming, W. J., West Allis.
Fletcher, E. A., Milwaukee.
Foerster, H. R., Milwaukee.
Foerster, O. H., Milwaukee.
Foley, L. J., Milwaukee.
Ford, W. B., Milwaukee.
Fortier, C. A. H., Milwaukee.
Fowle, F. F., Wauwatosa.
Fowle, I. H., Milwaukee.
Fox, M. J., Milwaukee.
Frank, J. H., Milwaukee.
Franklin, I., Milwaukee.
Franklin, S. N., Milwaukee.
Frederick, R. H., Milwaukee.
French, M. R., Milwaukee.
Frew, J. W., Milwaukee.
Frey, P. G., Milwaukee.
Friedrich, R. O., Milwaukee.
Froelich, J. A., Milwaukee.
Fuerstenau, L., Milwaukee.

Gahor, M. E., Milwaukee.
Gaenslen, F. J., Milwaukee.
Gallogly, M. J., Milwaukee.
Gaunt, P. F., Milwaukee.
Gibson, A. H., Chicago, Ill.
Gilchrist, R. T., Milwaukee.
Gilmer, L. T., Milwaukee.
Golley, F. B., Milwaukee.
Gordon, J. S., Milwaukee.
Graham, C. W., Milwaukee.
Gramling, E. H., Milwaukee.
Gramling, H. J., Milwaukee.
Gramling, J. J., Milwaukee.
Gray, A. W., Milwaukee.
Gray, W. K., Milwaukee.
Greenthal, R. M., Milwaukee.
Griffith, J. C., Milwaukee.
Grob, A. R. F., Milwaukee.
Grosskopf, E. C., Milwaukee.
Grotjan, W. F., Milwaukee.
Grove, W. E., Milwaukee.
Grover, F. L., Wauwatosa.
Guy, J. E., Milwaukee.

Haheck, E. A. W., Milwaukee.
Haberland, E. J., Milwaukee.
Hackett, J. H., Milwaukee.
Haessler, F. H., Milwaukee.
Hagerman, F. H., Milwaukee.
Haight, A. L., Crystal Falls, Mich.
Hake, Cecil B., Milwaukee.
Hall, R. M., Milwaukee.
Halsey, W. H., Milwaukee.
Hankwitz, P. G., Milwaukee.
Hannen, P. H., Milwaukee.
Hansen, J. W., Milwaukee.
Hansen, R. T., Wauwatosa.
Harder, H., Milwaukee.
Hardy, C. F., Milwaukee.
Hargarten, L. J., Milwaukee.
Harlow, G. A., Milwaukee.
Harper, C. W., Milwaukee.
Harrington, T. L., Milwaukee.
Hartman, A. S., Milwaukee.
Haushalter, H. P., Milwaukee.
Hawkins, H. M., Milwaukee.
Heeb, Harry J., Milwaukee.
Heffron, J. J., Milwaukee.
Heidner, F. C., Milwaukee.
Henderson, M. L., Milwaukee.
Henes, Edwin, Jr., Milwaukee.
Heraty, J. A., Milwaukee.
Herner, W. L., Milwaukee.
Herron, A. L., Milwaukee.
Higgins, S. G., Milwaukee.
Hill, W. B., Milwaukee.
Hipke, G. A., Milwaukee.
Hipke, L. W., Milwaukee.
Hitz, Henry B., Milwaukee.
Hoermann, B. A., Milwaukee.
Hoermann, R. B., Milwaukee.
Hoffman, G. H., West Allis.
Hogue, G. I., Milwaukee.
Holbrook, A. T., Milwaukee.
Hollenbeck, N. W., Milwaukee.
Hood, A. J., Milwaukee.
Howard, M. Q., Wauwatosa.
Howard, T. J., Milwaukee.
Hoyer, H. A., Milwaukee.
Huber, H. H., Milwaukee.
Huennekins, J. G., Wauwatosa.
Hume, W. W., Milwaukee.
Hunt, W. R., National Home.

Ide, Charles E., Milwaukee.
Jackson, E., Milwaukee.
Jacobson, E. B., Milwaukee.
Jenner, A. G., Milwaukee.
Jermain, H. F., Milwaukee.
Jermain, L. F., Milwaukee.
Jermain, W. M., Milwaukee.
Jobse, W. P., Milwaukee.
Johnson, A. W., Hales Corners.
Johnson, C. G., Milwaukee.
Johnson, H. W., Milwaukee.
Jones, G. S., Wauwatosa.
Judge, T. A., Milwaukee.
Juergens, L. W., Milwaukee.
Jurss, G. J., Milwaukee.
Kahn, Joseph, Milwaukee.
Kassowitz, K. E., Wauwatosa.
Kastner, A. L., Milwaukee.
Kaumheimer, G. J., Milwaukee.
Kaysen, Ralph, Milwaukee.
Kearns, W. M., Milwaukee.
Kelly, G. F., Milwaukee.
Kelly, George F., Milwaukee.
Kennedy, W. R., Milwaukee.
Kenney, G. F., Milwaukee.
Kettlehut, E. J., Milwaukee.
Kiefer, J. G., Milwaukee.
Kiley, W. E., Milwaukee.
King, J. M., Milwaukee.
Kissinger, C. A., Milwaukee.
Kissling, A. C., Milwaukee.
Klein, T. J., Milwaukee.
Kleinhoehl, J. W., Milwaukee.
Kleinhans, M. A., Milwaukee.
Koch, M. J., Milwaukee.
Koehler, J. P., Milwaukee.
Korthals, F. J., Milwaukee.
Kovats, F. C., Milwaukee.
Kradwell, W. T., Wauwatosa.
Kratsch, A. W., Milwaukee.
Kremers, Alex, Milwaukee.
Kretchmar, L. H., Milwaukee.
Kreutzer, A. G., Milwaukee.
Kristjanson, H. T., Milwaukee.
Kriz, G. H., Milwaukee.
Kriz-Hettwer, Rose A., Milwaukee.
Krueger, B., Cudahy.
Krygiar, A. A., Milwaukee.
Krzysko, S. L., Milwaukee.
Kuhn, H. J., Milwaukee.
Lademann, O. E., Milwaukee.
Ladewig, A. W., Milwaukee.
Ladewig, Harry, Milwaukee.
Lambeck, F. J., Milwaukee.
Langjahr, A. R., Milwaukee.
Langland, P., Milwaukee.
Le Cron, W. L., Milwaukee.
Leitch, G. W., Milwaukee.
Lettenberger, J., Milwaukee.
Lewis, C. H., Milwaukee.
Lewis, Marion, Milwaukee.
Liefert, W. C., Milwaukee.
Lillie, O. R., Milwaukee.
Lippitt, S. H., Milwaukee.
Lobedan, E. T., Milwaukee.
Lotz, Oscar, Milwaukee.
Loughlin, D. M., Milwaukee.
Love, I. B., Milwaukee.
Lungmus, B. A., Milwaukee.
MacKedon, T. E., Milwaukee.
MacKedon, W. L., Milwaukee.
MacRae, M., Milwaukee.
McBeath, N. E., Milwaukee.
McCabe, Harry, Milwaukee.
McCann, Edith, Milwaukee.
McCorkle, S. C., Milwaukee.
McCormick, T. F., Milwaukee.
McDonald, C. F., Milwaukee.
McGovern, J. J., Milwaukee.
McGrath, J. W., Milwaukee.
McKillip, W. J., Milwaukee.
McMahon, F. B., Milwaukee.
McMahon, H. O., Milwaukee.
McMahon, J. P., Milwaukee.
McNary, J. F., Milwaukee.
McNaughton, W. T., Milwaukee.
Mackoy, F. W., Milwaukee.
Madison, J. D., Milwaukee.
Maercklein, O. W., Milwaukee.
Malone, T. C., Milwaukee.
Margoles, F. C., Milwaukee.
Marks, J. B., Milwaukee.
Markson, M. R., Milwaukee.
Markson, S. M., Milwaukee.
Martin, H. G., Milwaukee.
Matthews, J. B., Milwaukee.
Mehigan, D. D., Milwaukee.
Mehl, H. F., Milwaukee.
Melster, W. H., Milwaukee.
Mensing, Edmund, Milwaukee.
Merten, A. N. E., Milwaukee.
Merten, P. J., Milwaukee.
Messmer, C., Milwaukee.
Meyst, C. H., Milwaukee.
Mieding, A. E., Milwaukee.
Miller, C. D., Rochester, Minn.
Miller, E. W., Milwaukee.
Miller, W. P., Milwaukee.
Miloslavich, E. L., Milwaukee.
Miner, H. B., Milwaukee.
Mishoff, I. D., Milwaukee.
Mitchell, S. R., Milwaukee.
Mock, F. C., Milwaukee.
Moeller, J., Milwaukee.
Mollinger, S. M., Milwaukee.
Montgomery, A., Milwaukee.
Morter, C. W., Milwaukee.
Morter, Ralph E., Milwaukee.
Muckerheide, A. J., Milwaukee.
Mueller, G. F. C., Milwaukee.
Mulsow, J. E., Milwaukee.
Munkwitz, F. H., Milwaukee.
Murphy, F. D., Milwaukee.
Murphy, W. J., Milwaukee.
Neilson, G. W., Milwaukee.
Nelson, J. D., Milwaukee.
Nelson, W. V., Milwaukee.
Newberry, C. L., Milwaukee.
Nichols, W. T., Milwaukee.
Niland, P. J., Milwaukee.
Nolte, L. G., Milwaukee.
O'Connell, D. C., Milwaukee.
O'Connell, J. E., Milwaukee.
O'Donovan, T. W., Milwaukee.
O'Hara, J. J., Milwaukee.
O'Malley, T. S., Milwaukee.
Oakland, H. G., Milwaukee.
Oberembt, B., Milwaukee.
Ogden, H. V., Milwaukee.
Olson, H. J., Milwaukee.
Olson, R. E., Milwaukee.
Owens, W. H., Milwaukee.
Panetti, E. J., Milwaukee.
Partridge, C. D., Cudahy.
Paschen, J. G., Milwaukee.
Patek, A. J., Milwaukee.
Pegram, J. W., Milwaukee.
Pendergast, T. J., Milwaukee.
Perlson, P. H., Milwaukee.
Peterman, M. G., Milwaukee.
Peterson, E. F., Wauwatosa.
Pfeffer, E. N., Milwaukee.
Pfeil, R. C., Milwaukee.
Pfister, Franz, Milwaukee.
Pfisterer, F. W., Markesan.
Phillips, T. C., Milwaukee.
Pierce, D. F., Milwaukee.
Pink, J. J., Milwaukee.
Plahner, S., Milwaukee.
Pleyte, A. A., Milwaukee.
Podlasky, H. B., Milwaukee.
Powers, H. W., Milwaukee.
Powers, J. W., Milwaukee.
Puls, A. J., Milwaukee.
Purtell, E. J., Milwaukee.
Purtell, J. A., Milwaukee.

Quick, E. W., Milwaukee.
Quin, J. F., Milwaukee.
Quinn, F. P., Milwaukee.

Ragan, W. F., Milwaukee.
Raine, Forrester, Milwaukee.
Rasmussen, Hans, Milwaukee.
Reeves, S. T., Milwaukee.
Regan, E. D., Milwaukee.
Reich, W. F., Milwaukee.
Reinke, C. C., Milwaukee.
Rheineck, A. F., Milwaukee.
Rice, E. M., Milwaukee.
Rice, R. H., Milwaukee.
Riehl, F. W., Milwaukee.
Robbins, J. M., Milwaukee.
Roberts, D. W., Milwaukee.
Rohy, H. S., Milwaukee.
Rock, J. N., Milwaukee.
Rock, J. W., Milwaukee.
Roethke, R. W., Milwaukee.
Rogers, A. W., Oconomowoc.
Rogers, M. F., Milwaukee.
Rogers, P. F., Milwaukee.
Rolfs, T. H., Milwaukee.
Rosenberger, A. I., Milwaukee.
Ross, P. M., Milwaukee.
Rowley, B. B., Milwaukee.
Rudolf, A. J., Milwaukee.
Rueth, J. E., Milwaukee.
Ruhland, G. C., Syracuse, N. Y.
Ruschaupt, L. F., Milwaukee.
Russell, F. G., Milwaukee.
Russell, H. C., Milwaukee.
Russell, R. J., Milwaukee.
Ryan, E. R., Milwaukee.
Ryhak, F. S., Milwaukee.

Sargent, H. W., Wauwatosa.
Sargent, J. C., Milwaukee.
Savage, G. T., Milwaukee.
Sayle, R. G., Milwaukee.
Schell, Ida L., Milwaukee.
Schiller, L., Milwaukee.
Schlaepfer, Karl, Milwaukee.

Schiapik, A., Kenosha.
Schlomovitz, B. H., Milwaukee.
Schlueter, U. A., Milwaukee.
Schmidt, H. E., Milwaukee.
Schmidt, H. G., Milwaukee.
Schmit, Felix, Milwaukee.
Schmit, Louis, Milwaukee.
Schmitt, Gus, Milwaukee.
Schmitt, Phillip, Milwaukee.
Schneider, C. C., Milwaukee.
Schneider, J., Milwaukee.
Schoen, Charles, Milwaukee.
Scholter, E. A. W., Milwaukee.
Scholz, G. M., Milwaukee.
Schoofs, O. P., Milwaukee.
Schowalter, R., Milwaukee.
Schroeder, J. C., Milwaukee.
Schubert, F. J., Milwaukee.
Schuenzel, L. G. A., Milwaukee.
Schulz, J. W. A., Milwaukee.
Schumm, H. C., Milwaukee.
Schwartz, A. B., Milwaukee.
Schweitzer, G. J., Milwaukee.
Scollard, J. T., Milwaukee.
Seaman, G. E., Milwaukee.
Seeger, S. J., Milwaukee.
Seegers, F. W., Milwaukee.
Seelman, J. J., Milwaukee.
Selle, F. S., Milwaukee.
Senn, Ulrich Milwaukee.
Sherwood, M. W., Milwaukee.
Shimpa, J. F., Milwaukee.
Sickels, W. A., South Milwaukee.
Sidler, A C., Cudahy.
Siekert, H. P., Milwaukee.
Sifton, H. A., Milwaukee.
Silbar, S. J., Milwaukee.
Sivyer, A. W., Milwaukee.
Slaney, A. F., Stockbridge.
Sleyster, Rock, Wauwatosa.
Smith, E. A., Milwaukee.
Smith, H. S., Cudahy.
Smith, J. W., Milwaukee.
Smith, L. D., Milwaukee.
Smith, S. M., Milwaukee.
Smuckler, R. H., Milwaukee.
Sperry, S. B., Milwaukee.
Spilberg, S., Milwaukee.
Spitz, M. M., Milwaukee.
Sproule, Ralph, Milwaukee.
Squier, T. L., Milwaukee.
Stack, S. S., Jr., Milwaukee.
Stack, S. S., Milwaukee.
Stamm, L. P., Milwaukee.
Stanley, W. S., Milwaukee.
Stark, R. M., Milwaukee.
Stefanez, J. S., Milwaukee.
Stemper, I. G., Oconomowoc.
Stern, Wm., Milwaukee.
Stevens, G. W., Milwaukee.
Stirn, F. J., Dubuque, Ia.
Stockinger, R. E., Milwaukee.
Stoddard, C. H., Milwaukee.
Stokes, H. B., Milwaukee.
Stone, E. J., Milwaukee.
Stranberg, W. L., West Allis.
Strass, H. W., Milwaukee.
Stratton, F. A., Milwaukee.
Studley, Frank C., Milwaukee.
Sure, J. H., Milwaukee.
Sutter, E. H., Milwaukee.
Sweemer, W., Milwaukee.
Sykes, H. D., Milwaukee.
Szlapka, T. L., Milwaukee.
Taugher, A. J., Milwaukee.
Taylor, J. Gurney, Milwaukee.
Teschan, R. F., Milwaukee.
Thalhimer, W. M., Milwaukee.
Tharinger, E. L., Milwaukee.
Thienhaus, C. O., Milwaukee.
Thiil, D. P., Milwaukee.
Thomas, J. S., Milwaukee.
Thompson, E. X., Milwaukee.
Thompson, F. A., Milwaukee.
Thompson, I. F., Syracuse, N. Y.
Thorndike, W., Milwaukee.
Tillson, E. M., Milwaukee.
Timm, E. W., Milwaukee.
Tisdale, L. C., Milwaukee.
Toepfer, R. A., West Allis.
Tolan, T. L., Milwaukee.
Tousignant, A. N., No. Milwaukee.
Truitt, J. W., Milwaukee.
Tufts, M., Milwaukee.
Tully, L. P., Wauwatosa.
Vachitinsky, S., Milwaukee.
Van Ells, L. A., West Allis.
Van de Erve, W., Milwaukee.
Wagner, Paul, Milwaukee.
Waite, R. A., Milwaukee.
Waldeck, E. A., Milwaukee.
Wallschlaeger, G., Milwaukee.
Warfield, L. M., Milwaukee.
Washburn, R. G., Milwaukee.
Washburn, W. H., Milwaukee.
Weber, A. J., Milwaukee.
Wegge, W. F., Milwaukee.
Weideman, W. G., Milwaukee.
Weingart, W. F., Milwaukee.
Wenker, R. J., Milwaukee.
Wenn, J. F., Milwaukee.
Wenstrand, D. E. W., Milwaukee.
Westhofen, R. C., Milwaukee.
Wetzler, S. H., Milwaukee.
Whalen, G. E., Milwaukee.
White, A. G., Lynchburg, Va.
Wilets, J. B., Milwaukee.
Willett, T., West Allis.
Winnemann, W. J., Milwaukee.
Witte, D. H., Milwaukee.
Witte, W. C. F., Milwaukee.
Wolters, H. F., Milwaukee.
Wright, F. R., West Allis.
Yaffe, Aaron, Milwaukee.
Yanke, A. E., Milwaukee.
Yates, J. L., Milwaukee.
Young, A. F., Wauwatosa.
Zann, J J., Milwaukee.
Zilisch, H. E., Milwaukee.
Zimmermann, C., Milwaukee.
Zivnuska, J. F., Milwaukee.
Zuercher, J C., Milwaukee.
Zurheide, H. O., Milwaukee.

Monroe

Abbott, LeRoy, Wilton.
Allen, A. L., Norwalk.
Allen, J. S., Norwalk.
Beebe, C. D., Sparta.
Beebe, C. M., Sparta.
Beebe, S. D., Sparta.
Bell, A. R., Tomah.
Cremer, C. H., Cashton.
Devine, G. C., Ontario.
Johnson, H. B., Tomah.
Phalen, C. S., Sparta.
Saries, W. T., Sparta.
Scantleton, J. M., Sparta.
Scheurich, L. G., Tomah.
Seidel, J. G., Warrens.
Sheehy, T. J., Tomah.
Stiles, V. W., Sparta.
Williams, H. H., Sparta.
Winter, A. E., Tomah.
Yates, C. A., Kendall.

Oconto

Armstrong, C. E., Oconto.
Baldwin, L. H., Gillett.
Elliott, R. S., Milwaukee.
Faulds, R. C., Abrams.
Goggins, R. J., Oconto Falls.
Krahn, G. W., Oconto Falls.
Linger, E. A., Oconto.
Obswaldt, H. F., Oconto Falls.
Oueliette, C. J., Oconto.
Rose, J. F., Lena.
Stoelting, C. W., Oconto.
Watkins, W. C., Oconto.

Oneida-Forest-Vilas

Bird, J. W., Rhinelander.
Clark, J. F. W., Laona.
Decker, C. O., Crandon.
Harter, A. F., Rhinelander.
Huber, G. W., Minocqua.
Ison, G. W., Crandon.
McIndoe, T. B., Rhinelander.
Nordlander, Thure, Phelps.
Oldfield, R. A. A., Eagle River.
Ovitz, E. G., Laona.
Packard, C. D., Rhinelander.
Richards, C. A., Rhinelander.
Schiek, I. E., Rhinelander.
Vande Zande, C. U., Tripoli.

Outagamie

Benton, Joseph L., Appleton.
Bolton, E. L., Appleton.
Boyd, C. D., Kaukauna.
Brooks, E. H., Appleton.
Brunckhorst, F. O., Hortonville.
Carlson, G. W., Appleton.
Cooney, E., Appleton.
Dehne, W. O., Appleton.
Dohearty, F. P., Appleton.
Doyle, J. H., Little Chute.
Flanagan, G. J., Kaukauna.
Frawley, W. J., Appleton.
Gallaher, D. M., Kaukauna.
Hegner, G. T., Appleton.
Holz, A. P., Seymour.
Hoyer, G. C., Appleton.
Ketels, Christien, Appleton.
Laird, J. J., Black Creek.
Landis, Ralph V., Appleton.
MacLaren, J. B., Appleton.
McGrath, E. F., Appleton.
Maes, C. G., Kimberly.
Marshall, V. F., Appleton.
Mielke, E. F., Appleton.
Mills, N. P., Appleton.
Moore, W. N., Appleton.
Neidhold, C. D., Appleton.
Ott, H. A., Dale.
Pratt, George, Appleton.
Rector, A. E., Appleton.
Reeve, J. S., Appleton.
Reineck, C., Appleton.
Ritchie, G. A., Appleton.
Ryan, C. E., Appleton.
Schaper, H., Tudor, Alberta, Canada.
Shepherd, W. A., Seymour.
Towne, W. H., Shiocton.
Walch, F. C., Clintonville.

Pierce-St. Croix

Armstrong, Joshua, New Richmond.
Beebe, P. A., Glenwood City.
Blom, Julius, Woodville.
Bradford, E. B., Hudson.
Breed, A. L., Elmwood.
Cairns, R. W., River Falls.
Campbell, L. A., Clear Lake.
Conway, John M., Spring Valley.
Dawson, C. A., River Falls.
Dill, G. M., Long Beach Calif.
Epley, O. H., New Richmond.
Gendron, A. E., River Falls.
Jones, Louis E., Prescott.
Kunny, B., Baldwin.
McCusker, Chas. F., Glenwood City.
Perrin H. E., Star Prairie.
Prentice, John W., Deer Park.
Wade, F. S., New Richmond.
Wright, E. A., New Richmond.

Portage

Coon, H. M., Stevens Point.
Coon, J. W., Stevens Point.
Cooper, E. S., Almond.
Cowan, W. F., Stevens Point.
Crosby, E. P., Stevens Point.
Cutting, Lloyd D., Stevens Point.
Edwards, J. B., Madison.
Gregory, W. W., Stevens Point.
Kremhs, F. R., Stevens Point.
Lawrence, G. H., Stevens Point.
Lindores, J. D., Stevens Point.
Lowe, R. C., Stevens Point.
Marrs, F. A., Stevens Point.
Raasock, H., Nelsonville.
Reis, G. W., Junction City.
Rice, D. S., Stevens Point.
Smiley, R. B., Stevens Point.
Southwick, F. A., Stevens Point.
von Neupert, Carl, Stevens Point.
Webster, F. E., Amherst.

Price-Taylor

Baker, G. L., Rib Lake.
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Riley, Rose Dvorak, Park Falls.
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Brehm, Theodore, Racine.
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Henken, J. F., Racine.
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McCarthy, H. C., Richland Center.
Parke, George, Viola.
Pippin, B. I., Richland Center.
Ross, John, Richland Center.

Rock

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Allen, W. J., Beloit.
Anderson, H. B., Beloit.
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Binnewies, F. C., Janesville.
Brinckerhoff, F. E., Beloit.
Brown, E. B., Beloit.
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Connell, D. R., Beloit.
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Coon, G. W., Milton Junction.
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Tryon, F. E., Baraboo.
Wahl, C. M., Spring Green.
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